us-09-367-052-3.rge

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Tue May 18 13:54:41 2004
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GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.	eic - nucleic search, using sw model	May 17, 2004, 04:56:59; Search time 2791.11 Seconds (without alignments) 10714.982 Million cell updates/sec	US-09-367-052-3 score: 690 e: 1 ctgcacctgtcagtggctgagcctgaaccccatcctctat 690	table: IDENTITY NUC Gapop 10.0 , Gapext 1.0	d: 3470272 seqs, 21671516995 residues	umber of hits satisfying chosen parameters: 6940544	DB seq length: 0 DB seq length: 200000000	ocessing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries	GenEmbl:*  1
		Run on:		Scoring table:	Searched:	Total number of	8 e 6 d	Post-processing	Database:

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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	DB ID	10 MMLCR12		10 MMLCR13	10 MMUS9760	10 MMU65580	10 MMLESTRPT	10 AB000803	10 MMLESTRGN	2 AC147556	10 AF452185	2 AC122097	2 AC107097	10 RNU90610	9 AF172212	9 AF178084	9 AF172210	9 AF172213	9 AF172214	9 AF172218	9 AF172228	9 AF172231	9 AF452613	9 AY185894 9 AF226128	9 AF178082	9 AF172219	9 AF172220	9 AF172221	9 AF172224	9 AF172225	9 AF172226	9 AF172230	6 AX256185	6 AX482330	6 BD226095 9 PF005375	9 AY242129	9 BT006660	ALIGNMENTS		1180 bp gene.	. 00	ptor 4; CXCR-4; lcr e.mouse)	, Chordata, Craniata, , Rodentia, Sciurognat	er, R. and
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<pre>ib Unpublished  ib (bases 1 to 1180)  ib Lipp,M.  Direct Submission  blinetted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH,</pre>	D-13122, GERWANY T On Nov 21, 1997 this sequence version replaced gi:1542888. ES Location/Qualifiers ource /organism="Mus musculus" /mol type="makk"	· · · · · · · · · · · · · · · · · · ·	/u///	/codon_gtart=1 /product="CXCR-4" /protein_id="CAB02202.1" /db_xref="G1:1542889" /db_xref="G0A:170658"	/translation="MEPISIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTI YFIIFLTGIVGNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADW YFGKFLCKAVHIIYTVNLYSSVLILAFISLDRYLAIVHATNSQRFRKLLAEKAVYVGV WIPALLLYIPDFIFADVSQGDISQSDDRYICDRLYPDSLMWVYFQPQHINVGLILPGI		/gene="lcr-1" /humber=1 on 16>1180 /gene="lcr-1"	/number=2	Query Match 100.0%; Score 690; DB 10; Length 1180; Best Local Similarity 100.0%; Pred. No. 7.2e-163; Matches 690; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACCTCCCCTTCTGGGGCAGTTGAT 60	61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCATCACT 120	121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180	181 ATTGECCAGGCCAACAGCCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTAT 240 	241 GIGGGCGICIGGAICCCAGCCCTCCTCGACIAIACCIGACITCAICITIGCCGACGIC 300	301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 	361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420
JOURNAL REFERENCE AUTHORS TITLE JOURNAL	COMMENT FEATURE SO	gene	CDS			exon	exon	ORIGIN	Query Best Match	දු පු	\ 2 2 3	λο q <sub>α</sub>	Qy Dp	දු දු	& 8 6	ò

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TTCCACTGTTGCCTGAACCCCATCCTCTAT 1004 TICCACTGITGCCTGAACCCCATCCTCTAT 690 /cell\_type="pre-B cell" /tissue\_type="pone marrow" 1. .1877 /gene="murine\_CXCR-4" 1. .1877
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This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein. ö Location Qualifiers

1. 1817

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| Organism="Mus musculus"
| Amol\_type="maxns" | Maxns="maxns" | Maxns="maxns" | Maxns="maxns" | Maxns="maxns" | Maxns="maxns" | Maxns="maxns="maxns="maxns" | Maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="maxns="m /note="groonyms: LESTR, fusin, PB-CKR, PBSF/SDF-1, CD184" /db\_xref="LocusID:12767" /db\_xref="MGI:109563" 246. .1004 /note="7tm\_1; Region: 7 transmembrane receptor (rhodopsin 120 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 434 554 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 374 GTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180 Ή. 9 Sequencing Center Center code: BOR-HGSC Web site: http://www.hgsc.bcm.tmc.edu/cdna/ Contact: amg@bcm.tmc.edu Contact: amg@bcm.tmc.edu Gunazafne, PH., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati, A.N., Gibbs, R.A. CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 0; Gaps Query Match

Best Local Similarity 100.0%; Pred. No. 7.3e-163;
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murine CXCR-4.

Musculus (house mouse)

Mus musculus (house mouse)

Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

1 (sites)

Nagasawa, T., Nakajima, T., Tachibana, K., Iizasa, H., Bleul, C.C.,

Yoshie, O., Matsushima, K., Yoshida, N., Springer, T.A. and

Kishimoto, T.

Molecular cloning and characterization of a murine pre-B-cell

growth-stimulating factor/stronal cell-derived factor 1 receptor, a

murine homolog of the human immunodeficiency virus 1 entry

coreceptor fusin

L Proc. Natl. Acad. Sci. U.S.A. 93 (25), 14726-14729 (1996) Direct Submission
Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Osaka Medical Center, Department of Immunology; Murodocho 840, Izumi, 08aka 590-02, Japan (B-mail:immunol@osk.threewebnet.or.jp, Tel:0725-56-1220, Fax:0725-57-3021)
Location/Qualifiers ROD 07-FEB-1999 674 420 734 480 794 540 854 900 914 660 974 615 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACACCTTTACCCCGAT AGCCTGTGGATGGTGGTGTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACGGGCCAC 855 CTGCCATATTATGTGGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAGCAA 601 GGATGTGACTTCGAGAGTATGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 915 GGATGTGAGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC Arcercarcercaraterecarcarcarcaretrasecrercacacrecases 795 cadaadcdcaadccccrcaadacdacacrcarccrcarccradcrrrrrrrccrecred CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA D87747 HANA linear Mus musculus mRNA for murine CXCR-4, complete cds. D87747 2 (bases 1 to 1877)
Nagasawa, T.T.
Molecular cloning of murine PBSF/SDF-1 receptor
Unpublished
3 (bases 1 to 1877)

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exon

musculus lcr-1 gene,

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                                                                                                                                                                     Craniata, Vertebrata, Euteleostomi;
Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                 Lipp,M.
Direct Submission
Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Molecular (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Molecular, GERMANY
D-13122, GERMANY
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                                                       280113.1 GI:1655638
CXC chemokine receptor 4, CXCR-4; lcr-1 gene.
Mus musculus (house mouse)
Mus musculus
Eukaryota, Metazaa; Chordata; Craniata; Vertebrata;
Bukaryota, Whetazaa; Chordata; Craniata; Vertebrata;
I (bases 1 to 1422)
Schubel,A., Burgetahler,R. and Lipp,M.
The mouse homologue of the human HIV coreceptor CXC
High expression in thymus and lymphoid tissues
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.larity 99.9%; Pred. No. 1.8e-162;
Conservative 0; Mismatches 1;
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/mol_type="genomic DNA"
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<1. ...259
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/gene="lcr-1"
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/standard_name="CXC_cl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
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2 (bases 1 to 1422)
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/number=1
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689, Conserv
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Best Local S:
Matches 689,
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ROD 31-0CT-1996

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đq 1422 327 GCCATGGCTGACTAGGAAATTTTTTGTGTAAGGCTGTCCATATCATCTACACT 386

387 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 181 ATTGTCCACGCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAGGCGAGTCTAT 

GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC

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995 360 420 989 480 746

567 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGCCCTTTACCCCGAT 626

301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT

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896 ATCGTCATCCTCTCTGTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 955  481 CAGAAGCGCAAGGCCTCAAGACGACAGTCATCCTCATCCTAGCTTTGCTGGTGG 540	601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660	MMUS9760  MAUS musculus fusin homolog mRNA, complete cds. 1059760 1059760.1 GI:1527134  Mus musculus (house mouse) Mus musculus (house mouse) Must musculus (house mouse)		2 (bases Heesen, M., Direct Sub Submitted Longwood I	/organism="Mus musculus"  /mol_type="mRNA"  /mol_type="mRNA"  /mol_type="mRNA"  /db_xref="taxon:10090"  /db_xref="taxon:10090"  /db_xref="taxon:10090"  /mol_tile="seven transmembrane spanning receptor;  /codon_start=1  /codon_start=1  /product="fusin homolog"	/protein_id="AAB07725.1" /db_xref="0.001:1527135" /db_xref="0.01:1527135" /trainslation="Mablesvorthy protein the protein the protein trainslation of the protein
90 O O O	2 4 2 4	RESULT 5 MANUS 760 LOCUS DEFINITIO ACCESSION VERSION KEYWORDS SOURCE ORGANIS	REFERENCE AUTHORS TITLE JOURNAL MEDLINE PUBMEDE	REFERENCE AUTHORS TITLE JOURNAL FEATURES	-	ORIGIN

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GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGGGCCCTCGCCTTC 660

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867 661 927

TTCCACTGTTGCCTGAACCCCATCCTCTAT 690

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S.

Wus musculus (house mouse)

ISM Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

RS Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E.

Cloning of the mouse fusin gene, homologue to a human HIV-1

IAL J. Immunol. 157 (12), 5455-5460 (1996)

INE 9711334

ST. 13334

NCE 2 (bases 1 to 3366)

NAL Berman,M.A., Gerard,C. and Dorf,M.E.

B 9955194

NCE 2 (bases 1 to 3366)

NAL Longwood Avenue, Boston, MA 02115, USA

Longwood Avenue, Eoston, MA 02115, USA
                                                                           13-DEC-1996
                                                                           ROD
                                                                    MMUG5580
3366 bp DNA linear Mus musculus fusin (CXCR-4) gene, complete cds. U65580.1 GI:1731650
RESULT 6
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0; Gaps

Query Match 99.3%; Score 685.2; DB 10; Length 1223; Best Local Similarity 99.6%; Pred. No. 1.2e-161; Matches 687; Conservative 0; Mismatches 3; Indels 0;

1 CTGCACCTGTCAGTGGCTGACCTCTTTGTCATCACCACTCCCCTTCTGGGCAGTTGAT 60

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GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120

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Moepps, B.
Direct Submission

Submitted (19-JUL-1996) B. Moepps, Universitaet Ulm,
Submitted (19-JUL-1996) Albert-Einstein Allee 11, D-69081 Ulm, FRG
Revised by author 11-NOV-96
On Nov 12, 1996 this sequence version replaced gi:1657351.

Location Qualifiers
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(db_xxef="GOA; 1.1666649"

(db_xxef="GOA; 1.1666649"

(db_xxef="GOA; 1.1666649"

(db_xxef="GOA; 1.1666649"

(db_xxef="GOA; 1.1666649"

(db_xxef="GOA; 1.166684"

(db_xxef="GOA; 1.166884"

(db_xxef="GO
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M.musculus mRNA for leukocyte-dervied seven transmembrane domain
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                                         3064 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCAA 3123
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cDNA cloning and genomic organization of a leukocyte-derived seven
transmembrane domain receptor (LESTR) from mouse: a murine
homologue of the human HIV-1 entry cofactor fusin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          seven transmembrane domain receptor
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
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                                                                                                                                                                                                             3124 GGATGTGACTTCGAGGATGTGCACGAGGATCTCCATCACAGAGGCCCTCGCCTTC
CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCATCAAGCAA
                                                                                                                                               GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
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Pred. No. 7.5e-161;
0; Mismatches 5;
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/dev_stage="6-8 weeks old"
1. .1575
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mol_type="mRNA"
forrain="B6CBA"
db_xref="taxon:10090"
/haplotype="diploid"
/sex="female"
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Mus musculus (house mouse)
Mus musculus
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90. .1169
/gene="lestr"
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IKQGCDFESIVHKWHSITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSSLK
ILSKGKRGGHSSVSTESESSSFFRS"
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gene="CXCR-4"
foote="SDF-1 chemokine receptor"
codon start=1
product="fusin"
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Pred. No. 1.2e-161;
0; Mismatches 3;
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/note="alternate
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/gene="CXCR-4"
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AB000803

1809 bp mRNA linear ROD 05-FEB-1999

Mouse mRNA for murine CXCR-4, complete cds.

NA AB000803.1 dI:1816445

ab000803.1 dI:1816445

murine CXCR.4; fusin.

Mus musculus (house mouse)

SM Mus musculus (house mouse)

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.

SI (bases 1 to 1809)

Suzuki, G., Nakata, Y., Uzawa, A., Shirasawa, T., Saito, T. and Mita, K.

Molecular cloning of murine CXCR-4, a murine homologue of HIV entry co-receptor, that is expressed on leukocyte and other organs

In Unpublished
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             CIGCACCIGICAGAGGCIGACCICCICITIGICALCACACACCCCTICIGGGCAGTIGAT
                                               GCCATGGCTGACTGGTACTTTGGGAATTTTTGGTAAGGTGTCCATATCATCTACACT
                                                              387 GCCATGGCTGACTGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
                                                                                                  GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC
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Suzuki,G.
Suzuki,G.
Suzuki,G.
Submitssion
Submitted (29-JAN-1997) Gen Suzuki, National Institute of
Radiological Sciences, Division of Radiation Health; 4-9-1,
Anagawa, Inage-ku, Chiba, Chiba 263, Japan
(E-mail:gsuzuki@unmx1.nirs.go.jp, Tel:043-251-2111,
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AB000803
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Gaps

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98.8%; Score 682; DB 10; 99.3%; Pred. No. 7.8e-161; tive 0; Mismatches 5;

Query Match
Best Local Similarity 99.39
Matches 685; Conservative

Length 3770;

2641 2701 2821 3061 AC145861 175370 bp DNA linear HTG 01-AUG-2003 Pan troglodytes chromosome UNK clone RP43-21D9, \*\*\* SEQUENCING IN PROGRESS \*\*\*, 39 unordered pieces. 2761 2881 2941 3001 3181 180 240 540 300 360 420 480 600 09 ACI45861 ACI45861.1 GI:33386791 HTG, HTGS PHASE1. Pan troglodytes Pan troglodytes Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Pan. 2522 CTGCACCTGTCAGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 2642 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCT 2702 ATTGTCCACGCCACCAACAGTCAGAGGCCAAGGAAACTGCTGGAAAAAGGCAGTCTAT 2942 ATCGTCATCCTCTCCTGTTACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 3062 checcararrarcadearcadearceachtearcerrearcerrandeagearcarcaadeaa 3122 GGATGTGACTTCGAGAGCATCGTGCACAAGTGGATCTCCATCACAGAGGCCTCGCCTTC 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 121 GTCAACCTCTACAGCGGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 181 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCAGCTGAAAAGGCAGTCTAT 241 GIGGGCGICTGGAICCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 2762 Greecencreearcecaecerecreereararacereactrearerraceceaeere 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCCGAT 2822 AGCCAGGGGACATCAGTCAGGGGATGACAGTACATCTGTGACCGCCTTTACCCCGAT 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCTGCCCGGC 421 ATCGTCATCCTCTCCTGTTACTGCATCATCATCTTAAGCTGTCACACACTCCAAGGGCCAC 541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 2582 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCATATCATCTACACT 3182 Trccacretrgccreaaccccarccrat 3211 The sequence of Pan troglodytes clone Unpublished TTCCACTGTTGCCTGAACCCCCATCCTCTAT 690 2 (bases 1 to 175370) Wilson, R.K. Direct Submission 661 ACCESSION VERSION KEYWORDS SOURCE ORGANISM LOCUS RESULT 10 AC145861 REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE ઠ 셤 ઠે 셤 q g g g q ò ò g à ò ò 임 ò ò ò d 유 ö

Submitted (01-AUG-2003) Genetics, Forest Park Parkway, St. Louis, M	18, Genome Sequencing Center, 4444 , MO 63108, USA	
Center: Washington University Gen Center: Washington University Gen Center Code: WIGSC Web site:http://genome.wustl.edu	Genome Sequencing Center	
Contact: submissions@watson.wustl.	. edu	
NOTE: This is a 'w	a. It currentl of the pieces	
* is not known and their order in this ser * arbitrary. Gaps between the contigs are	ane rej	
* runs of N, but the exact sizes of * This record will be updated with * as soon as it is available and th	is of the gaps are unknown. with the finished sequence of the arcession number wil	
preserved.	to acception names.	
5445: gap of unk	length	
17295: gap of unkn	фĕ.	
33250: contig 33350: gap of		FEATURES
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63423: contig of 63523: Gan of 1101	1331 bp in length	i E
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64766: gap of unk 65994: contia of	known length 1228 bo in length	misc
66094: gap of unk	cnown length	miscf
67530: gap of unk	cnown length	misc_f
68982: contig of 69082: gap of unk	1452 cnown	misc f
70891: contig of	1809 bp in length	u
72172: contig	110 by in length	9 4
73614: contig	unknown length of 1342 bp in length	1
73714: gap of unk 75185: contig of	cnown length 1471 bp in length	MISC
75285: gap of unk 76854: contig of	cnown length	misc_f
76954: gap of unk	cnown length	misc_f
78513: gap of unk	cnown length	misc_f
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83417: contig of 83517: gap of un	1572 bp in 1 known length	misc_f
84910: contig 85010: gap of	1393 known	misc f
86788: contig of	1778	
88892: contig	2004 P	m scim
88992: gap of unk 90670: contig of	1678	misc_f
90770: gap of unk 93207: contig of	cnown length 2437 bp in 1	miscf
93307: gap of unk	cnown length	misc_f
96656: CONCIG OL 3 96758: gap of unkn	CHOWIN	misc_f
00577 100676: gap of unkn	known length	misc_f
105088: gap of	4312 by in known length	misc_f

10099933 GOD 10099933 GOD 1106322 GOD 1116428 GOD 1116428 GOD 11209801	Location/Qualifiers  1. 175370  /organism="Pan troglodytes"  /mol type="ganomic DNA"  /db_xref="taxon:9598"  /chromosome="UNK"  /clone="RP43-21D9"		86. 76894 12 = "assembly_name:Contig69 15. 78413 14. 79564 14. 79565 14. 79565 17. 17956 18. 1745 18. 18417 18. 18417 18. 18410 18. 18410 18. 18410 19. 186788 11. 186788 11. 186788 12. 188892
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	Ζ Σ	REPERENCE 3 (bases 1 to 185215) AUTHORS Wilson.R.K. TITLE Direct Submission JOURNAL Submitted (17-DEC-2003) Genome Sequencing Center, 4444 Forest Park COMMENT	Sequencing vector: M13, 0% Sequencing vector: plasmid; 100% Gequencing vector: plasmid; 100% Gemistry: Dye-ptimer ET; 0% of reads Chemistry: Dye-terminator B19 Dye; 100% of reads Assembly program: Phrap; version 0.990319 Consensus quality: 194611 bases at least Q40 Consensus quality: 198294 bases at least Q30 Consensus quality: 198294 bases at least Q20 Insert size: 182000; agarose-fp Insert size: 25219; sum-of-confiss Quality coverage: 3.47 in Q20 bases; sum-of-contigs	* NOTE: This is a "working draft, sequence. It currently consists of 11 contigs. The true order of the pieces * is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. * This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.  1 1120 1139: gap of unknown length  2537 2737: gap of unknown length  2538 2737: gap of unknown length
misc_feature 899390670 misc_feature 9077190870 misc_feature 9077190207 misc_feature 933089658 misc_feature 7.005658 misc_feature 7.00579100576 misc_feature 7.005791005081 misc_feature 7.00579100988 misc_feature 100677104988 misc_feature 105089108893 misc_feature 108984112632 misc_feature 7.005893108989. misc_feature 108984112632 misc_feature 7.005889112632 misc_feature 7.005889112632 misc_feature 7.005889112632 misc_feature 7.005889112632		misc_feature         16734575370           ORIGIN         Query Match           Query Match         98.8%; Score 682; DB 2; Length 175370;           Best Local Similarity         99.3%; Pred. No. 9e-161;           Matches         685; Conservative         0; Mismatches         5; Indels         0; Gaps           Qy           CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT         60           Db         168198         CTGCACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCTTCTGGGCAGTTGAT         168257           Qy         61         GCCATGGCTGACTCGTAACTTTTTTTTTTTTTTTTTTTT	168258 GCCATGGCTGACTGGGAAATTTTTGTGTAAGGCTGTCCATATCTACACT 121 GTCAACCTCTACAGGAAATTTTTGTGTAAGGCTGTCCATATCTACACT 121 GTCAACCTCTACAGGGGTTCTCATCCTGGCCTTCATCAGCCTGGCTGCTCGCT 168318 GTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACGGTACCTGGCT 181 ATTGTCCACGCCACCAACAGCCCAAGGAAACTGCTGGCTG	168498 AGCCAGGGGACATCAGTCAGGAGGATGACAGTACATCTGTGACCGCCTTTACCCCGAT 360

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98.8%; Score 682; DB 2; Length 185215;
Best Local Similarity 99.3%; Pred. No. 9e-161;
Matches 685; Conservative 0; Mismatches 5; Indels 0;
2738 5059: contig of 2322 bp in length 5160 5159: gap of unknown length 6204 6303: contig of 1044 bp in length 6304 11814: contig of 5511 bp in length 11815 11845: contig of 5511 bp in length 11815 118453: contig of 6539 bp in length 1853: gap of unknown length 18653: gap of unknown length 18785 57713: contig of 23929 bp in length 18785: contig of 23929 bp in length 18785: contig of 23929 bp in length 1855: contig of 23929 bp in length 1855: contig of 23929 bp in length 1855: contig of 23929 bp in length 1852: contig of 23929 bp in length 1852: contig of 26738 bp in length 1852: contig of 52830 bp in length 185215: contig of 52830 bp in length 185215: contig of 52830 bp in length 185215: contig of 62830 bp in length 185215: contig of 62830 bp in length 186216 delamment DNA" | Mon Lype="genomic DNA" | Mon Lype="genomic DNA" | Alb Xref="fexon:10090" | Chromosome="Unxer" fexon:10090" | Chromosome="WEP23-480N14" |
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91897 AGCCTGTGGGTGTGTTTCAATTCCAGCATATAATGGTGGGTCTCGTCCTGCCCGGC 421 ATCGTCATCCTCTCTGTTACTGCATCATCATCTTCTAAGCTGTCACACTCCAAGGGCCAC 540

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CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA

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92197 TICCACTGATGCCTGATCCTTAT 930	12 5 AF452185 1050 bp mRNA linear ROD 18-DEC-2001 TON Rattus norvegicus strain Holtzman chemokine receptor CXCR4 (Cxcr4) gene, complete cds. ON AF452185.1 GI:17902280	S. Asttus norvegicus (Norway rat) ISM Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;	Sin Che		rce	41	codon start=1   codon start=1   codon start=1   product="chemokine receptor CXCR4"   protein_id="AAL47855.1"   db_xref="Gal:17962281"   chemokine receptor CXCR4"   chemokine receptor CXCR4"   chemokine receptor compared compar
S q	RESULT 12 AF452185 LOCUS DEFINITION ACCESSION	KEIWOKUS SOURCE ORGANISM	REFERENCE AUTHORS TITLE JOURNAL	AUTHORS TITLE JOURNAL	FEATURES sou	gene	

301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT 360

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                                                                                                         Query Match 83.9%; Score 578.6; DB 10; Length 1050; Best Local Similarity 91.4%; Pred. No. 8e-135; Matches 630; Conservative 0; Mismatches 44; Indels 15; Gaps
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/note="compared to Wistar strain sequence presented
GenBank Accession Number U90610"
/replace="cg"
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United Lourniasion

Submitted (12-MY-2012) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Houston, TX 77030, USA

Sat Genome Sequencing Consortium.

Direct Submission

Notecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shockyn sequencing reads assembled using Atlas (http://www.ngsc.bcm.tmc.edu/projects/rab. Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence Marany, Davaie, Merzher, M.Lee., Abramazon, S., Addms, C., Alder, J., Allen, E., Alabrascoke, S., Amin, A., Angulano, D., Anyalebochi, V., Angulano, D., Anyalebochi, V., Angulano, D., Anyalebochi, V., Angulano, D., Anyalebochi, V., Bandranake, D., Barbaroke, S., Amin, A., Angulano, D., Anyalebochi, V., Bandranake, D., Barbaroke, S., Burch, B., Biyth, P., Brown, W., Blayth, C., Burch, P., Brown, E., Gardena, V., Carer, V., Calderon, E., Cardena, V., Carer, V., Calderon, E., Cardena, V., Carer, V., Carer, V., Chen, Z., Chu, J., Chardo, J., Chavez, D., Chavez, D., Chan, G., Chen, R., Chen, Y., Chen, Z., Chen, S., Chen, S., Chen, Y., Calderon, E., Bayant, N., Dayan, R., Chen, G., Chen, R., Calderon, E., Barand, C., Daver, C., Ding, Y., Dinh, H., Diayar, R., Carer, M., Cabisi, A., Cares, C., Ding, Y., Dinh, H., Diayar, B., Eaves, K., Banda, C., Paras, C.A., Pallar, Y., Farest, C.M., Cabisi, A., Cares, C., Paras, C.A., Pallar, M., Cabisi, A., Cares, M., Gebregocrafis, E., Geer, K., Gallar, R., Garce, M., Gebregocrafis, E., Geer, K., Gallar, C., Hamilton, K., Harlandez, S., Fally, M., Fallad, M., Hamilton, C., Hamilton, K., Harlandez, S., Fally, M., Hawes, A., Henderson, M., Hernandez, M., Hardes, A., Handerson, M., Harlandez, M., Harles, S., Hully, K., S., Hume, J., Leval, J., Leval, J., Leval, J., Leval, J., Low, J., Lut, M., Liu, Y., London, P., Mannoud, M., Mallor, M., Sodergren, E., Song, M., Perez, A., Berez, M., Tabor, P., Taylor, C., Taylor, P., Waright, D., Waright, M., Waright, M., Waright, M., Waright, M., Waright, M., Waright, M., Wari Unpublished 2 (bases 1 to 190149) Worley, K.C. Direct Submission TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL COMMENT

AC122097,
AC122097,
AC122097,
GI-22097,
HTG; HTGS PAASE1; HTGS DRAFT; HTGS\_FULLTOP.
Rattus norvegicus (Norway rat)
Rattus norvegicus (Norway rat)
Bukatus norvegicus (Nordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae;

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

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NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature table.
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                                                                                                                                                                     Query Match 83.9%; Score 578.6; DB 2; Length 190149; Best Local Similarity 91.4%; Pred. No. 9.7e-135; Matches 630; Conservative 0; Mismatches 44; Indels 15; Gaps
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40068 40167: gap of unknown length
40168 114660: contig of 74493 bp in length
11461 114760: gap of unknown length
114761 188186: contig of 73426 bp in length
188187 188286: gap of unknown length
188287 190149: contig of 1863 bp in length.
Location/Qualifiers
                                                                     Center: Baylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
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**AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT** 

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Muzny, D. Maries I to 240931)

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AC107097.5 GI:30580624
HTG: HTGS\_PRAFT; HTGS\_ENRICHED.
Rattus norvegicus (Norway rat)
Rattus norvegicus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; 421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 661 TTCCACTGTTGCCTGAACCCCATCCTCTA 689 Rattus. 361 RESULT 14 AC107097/c LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS

Libert Submission Human Genetics, Baylor College of Medicine, One Eaylor Plaza, Houston, TX 77030, USA

Of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 13, 2003 this sequence version replaced gi:23115278.

The sequence in this assembly is a combination of BAC based reads and whole genome shorgun sequencing reads assembled using Atlas in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ms to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shorgun sequence reads. Both end sequences and whole genome shorgun sequence reads. Both end sequences and whole genome table. \* NOTE: Estimated insert size may differ from sequence length

\* (see http://www.hgsc.bcm.tmc.edu/docs/Genbank\_draft\_data.html).

\* NOTE: This is a "working draft" sequence. It currently

\* consists of 1 contigs. Gaps between the contigs.

\* are represented as runs of N. The order of the pieces

\* is believed to be correct as given, however the sizes

\* of the gaps between them are based on estimates that have

\* provided by the submittor.

\* This sequence will be replaced

\* by the fillished sequence as soon as it is available and

\* the accession number will be preserved.

\* Location/Qualifiers Puazo, M., Quiroz, J., Rachlin, E., Reeves, K., Regier, M.A., Reigh, R., Reilly, M., Ren, Y., Reuter, M., Richards, S., Riggs, F., Rives, C., Rodkey, T., Rojas, A., Rose, M., Rose, R., Ruiz, S. G., Riggs, F., Sanders, W., Savery, G., Scherer, S., Scott, G., Shatsman, S., Shen, H., Sheet, Y., Shavartsbeyn, A., Sisson, I., Sitter, C.D., Smajs, D., Sneed, A., Scdergren, E., Suston, R., Suttek, A., Tabor, P., Taylor, C., Taylor, T., Thomas, N., Thomas, S., Tingey, A., Trejos, Z., Usmani, K., Valas, R., Vera, V., Villaeana, D., Waldron, L., Walker, B., Wang, J., Wang, Q., Wallson, R., Wleren, R., Wei, X., White, F., Wailton, R., Waldron, L., Walker, B., Wang, J., Wright, D., Wright, R., Wu, Y., Yakub, S., Yen, J., Yoon, U., You, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weise, R., Smith, D.R., Holt, R.A., Smith, H.O., Weinetcock, G. and Gibbs, R.A. Center: Baylor College of Medicine
Center: Cade: College of Medicine
Center: Code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
Contact: project Information
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Consensus quality: 219254 bases at least Q30
Consensus quality: 221224 bases at least Q30
Consensus quality: 220277; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation Unpublished

(bases 1 to 240931)

Worley.K.

Worley.K. TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL COMMENT

/organism="Rattus norvegicus"

FEATURES

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Examination, J.K. and Salafranca, M.N.

Direct Submission

Louding, 1600 SW Archer Rd., Gainesville, FL 32610-0267, USA

Location/Qualifiers

1. 1050

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Rattus norvegicus CXC chemokine receptor (CXCR4) mRNA, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                   Rattus norvegicus (Norway rat)
Sattus norvegicus (Stratus) norvegicus
Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ...1050
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236756 TTCCACTGTTGCCTGAACCCCATCCTCTA 236728
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Harrison, J.K. and Salafranca, M.N.
Molecular cloning of rat CXCR4
Unpublished
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U90610.1 GI:1906612
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RNU90610
LOCUS
DEFINITION
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VERSION
KEYWORDS
SOURCE
ORGANISM
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CTGCACCTGTCCGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTGGAC 282 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 GCCATGGCTGACTGGTACTTTGGGAAATTTTTATGTAAGGCTGTGCATATCATCTACACC 342

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83.4%; Score 575.4; DB 10; Length 1050; llarity 91.1%; Pred. No. 5.1e-134; Conservative 0; Mismatches 46; Indels 15; Gaps

Query Match Best Local Similarity Matches 628; Conserv

ORIGIN

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GTCAACCTCTACAGCATCTCTCATCCTGGCCTTCAGCCTGGACCGGTACCTCGCC 180

283 121

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GTGGGCGTCTGGATCCCAGCCCTCCTCGACTATACCTGACTTCATCTTTGCCGACGTC 300

480 687 747 600 540 99 463 GTGGGTGTCTGGATCCCCGCCCTCCTCCTGACTATCCCTGACATCATCTTCGCCGATGTC 522 567 627 807 808 GGATGTGAGTTCGAGAGCGTCGTGCACAAGTGGATCTCCATCACGGAGGCCCTCGCCTTC 867 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 568 AGCCTGTGGATGGTGTTTCCAGTTCCAGCACATCATGGTGGGTCTCATCCTGCCGGGC 421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCAC 628 ATCGTCATCCTGTCTGTTACTGCATCATCTTCCAAGCTGTCACACTCCAAGGGCCAC 541 CIGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC Trecacretrecergaaccccarcera 689 868 TICCACIGITGCCIGAACCCCAICCIT Search completed: May 17, 2004, 12:10:45 Job time : 2796.11 secs 481 199

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

using sw model OM nucleic - nucleic search,

Run

May 17, 2004, 03:46:58 ; Search time 295.894 Seconds (without alignments) 9906.453 Million cell updates/sec . :

US-09-367-052-3 690 Title: Perfect score:

1 ctgcacctgtcagtggctga.......gcctgaaccccatcctctat 690 Sequence:

3373863 segs, 2124099041 residues IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table: Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

N\_Geneseq\_29Jan04:\* 1: geneseqn1980s:\* 2: geneseqn1990s:\* geneseqn2001as:\* geneseqn2001bs:\* geneseqn2003bs:\* geneseqn2003as:\* geneseqn2003cs: geneseqn2002s:\* ... Database

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

geneseqn2004s:\*

## SUMMARIES

Description	z276	Aav46370 Nucleic a	Adb58421 Toxicity-	Adb53005 Primary r	Aaz38553 Human CXC	Abq74938 Human CXC		Acc72707 Human can		Aca56637 Human sig	Aav18357 Human RM3	Aaa91726 Human 7TM	Abk54255 Human 7 t	Abs64793 CXCR4 rec	Aaz27610 Human CXC	Aaa61656 Human CXC	Aaz40014 CXCR4 cod	Abk83803 Human cDN	Abn95645 Gene #214	Acc46765 Human COP	Aad12801 Human neu	Aai65467 Nucleotid	Abs53992 DNA encod
ΩI		AAV46370	ADB58421	ADB53005	AAZ38553	ABQ74938	AAH99952	ACC72707	ABZ35630	ACA56637	AAV18357	AAA91726	ABK54255	ABS64793	AAZ27610	AAA61656	AAZ40014	ABK83803	ABN95645	ACC46765	AAD12801	AAI65467	ABS53992
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Query Match		100.0	83.4	83.4	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Score	069	σv	575.4	575.4	517.2	۲.	517.2	17	517.2	517.2	~	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	~	517.2	517.2	517.2
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Abs53750 DNA encod	σ	Abx08779 Angiogene	Abx74454 Human cDN		264	Adc98645 Human CXC	Abz35348 Human gen	Adb47320 Human cDN	Aag80521 Human mon	Aaq99007 Chemokine	882	Aaa34774 Human ade	Aaf20896 Human CCR	S	Abz96590 Human CCR	Aca64841 Human CXC	Aca64750 Chemokine	Aag66179 Seven tra	57548 Hum	3506 New pl	Abi97982 Non-endog
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24	25	56	27	58	29	30	31	32	33	34	35	36	37	38	39	40	41			44	45

#### ALIGNMENTS

AA227611 standard; DNA; 1758 BP. coding sequence (first entry) 16-DEC-1999 Mouse CXCR4 AAZ27611; RESULT 1
AA227611
AA227611
AA227611
AA22
XX
DT 16-L
DX MUS
XX
WW CXCR
WY CXCR

CXCR4, mouse, neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss.

Mus

WO9948528-A1 30-SEP-1999

23-MAR-1999;

98JP-00095448. 24-MAR-1998;

(CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T.

Tachibana K; Kishimoto T, Nagasawa T,

WPI; 1999-591042/50. P-PSDB; AAY39994.

CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.

Disclosure; Page 50-51; 63pp; Japanese.

This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases parbhologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a

ö 597 240 540 297 120 357 180 417 477 300 537 360 420 657 480 717 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAGCAA 837 999 897 establish CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600 9 Mouse; CXC chemokine receptor; pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS; ds. AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT GGATGTGGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC creckecrerekerekerekertekererinerekerekerecerrekerekerieki GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT GCCATGCCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT GTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCC GTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCTGGACCGGTACCTCGCC ATTIGLICCACGOCACCAACAGICAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTAT GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC Gradacercradacercercercercanderary AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAAATGGTGGGTCTCATCCTGCCCGGC AGCCTGTGGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC CAGAAGOGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTGCCTGC GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC Gaps possible to ö 2; Length 1758; Sequence 1758 BP; 447 A; 414 C; 369 G; 528 T; 0 U; 0 Other; Match 100.0%; Score 690; DB 2; Length 1 Local Similarity 100.0%; Pred. No. 6.8e-186; es 690; Conservative 0; Mismatches 0; Indels CXC chemokine receptor. substance capable of potentiating CXCR4. It is also methods for treatment with the use of these remedies 690 Trechergirecereaacecearecrear 927 TTCCACTGTTGCCTGAACCCCATCCTCTAT standard; cDNA to mRNA; 1877 encoding a murine (first entry) Nucleic acid 20-NOV-1998 358 418 478 598 658 718 838 61 298 121 181 241 301 538 361 421 541 778 601 868 AAV46370 AAV46370; 481 661 Query Match Best Local ន្តដ្ឋដូច 셤 d ò g d g g d qq g g g δ ò ठे  $\delta$ g ò à 8 ò ò  $\delta$ ઠે

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Best Local Similarity 100.0%; Pred. No. 7e-186;
Matches 690; Conservative 0; Mismatches 0; Indels
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                                                                                                                                                                                                     Kishimoto T, Nagasawa T, Tachibana K, Iizasa
Nakajima T, Yoshie O;
                                                                                                                                                                                                                                                                                                                                             Claim 3; Page 39-42; 76pp; Japanese
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P-PSDB; AAW64778.
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Location/Qualifiers 120. .1199 /\*tag= a

Key

97WO-JP000299.

07-FEB-1997; 07-FEB-1997;

WO9835035-A1 13-AUG-1998

Length 1050; 0 Other;

BP; 231 A; 313 C; 247 G; 259 T; 0 U;

Sequence 1050

926 099

896 600

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The present invention relates to a method for predicting a toxic effect of a compound. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising SEQ ID 1-4225, where differential expression of the gene indicates at least one toxic effect. The method is useful for predicting at least one toxic effect of a compound, predicting hepatocoxicity or the progression of a toxic effect. C of a compound, identifying an agent that modulates the onset or progression of a toxic response, predicting the cellular pathways that a compound modulates in a cell, and identifying an agent that modulates of eact one activity of a protein. The method and compositions of the present invention using a database of genes having liver toxin-liduced differential expression, are useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity markers in liver tissues or cells for drug screening and toxicity assays. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO at fig. The wipo.int/pub/published_pct_sequences.
                                                                                                                                      Predicting a toxic effect of a compound, useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity assays, comprises preparing gene expression profile of tissue or cells exposed to the compound.
CAGAAGGCCTCAAGACGACAGTCATCCTAGCTTTCTTTGCCTGCTGG
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screening; toxicity assay; ds.
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15-MAR-2002; 2002US-0364045P.
15-MAR-2002; 2002US-0364055P.
30-DEC-2002; 2002US-0436643P.
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Score 575.4; DB 9;
Pred. No. 2.3e-153;
0; Mismatches 46;
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Best Local Similarity 91.1%;
Matches 628; Conservative
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GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACACAGAGGCCCTCGCCTTC

CAGAAGCGCAAAGGCCCTCAAGACTACGGCATCCTTATCCTGGCTTTCTTGCCTGCTGG

us-09-367-052-3.rng

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The present invention describes a method for determining whether a compound induces a toxic effect on a tissue or cell. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising data or information on the Tox mean and non-Tox mean value. The method is useful for predicting or identifying at least one toxic effect, particularly hepatotoxicity, of a test or unknown compound. The genes listed in the specification are useful as diagnostic or toxicity markers for the prediction or identification of the physicalogical state of tissue or cell sample that has been exposed to a compound, or to identify or predict the toxic effects of a compound or an agent. These may also be used as markers for monitoring toxicity progression or for drug screening. The present sequence represents a primary rat hepatocyte toxicity modelling related gene sequence from the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Determining if a compound induces a toxic effect on a tissue or cell, for identifying hepatotoxic compounds, comprises comparing a gene expression profile of a tissue or cell sample to a database of Tox mean and non-Tox
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13-MAR-2002; 2002US-035334P.
10-APR-2002; 2002US-035334P.
10-APR-2002; 2002US-0371134P.
10-APR-2002; 2002US-0371134P.
11-APR-2002; 2002US-0371136P.
11-APR-2002; 2002US-0371136P.
11-APR-2002; 2002US-03713601P.
19-APR-2002; 2002US-0373602P.
22-APR-2002; 2002US-0373602P.
22-APR-2002; 2002US-0373652P.
09-MAY-2002; 2002US-0378652P.
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09-MUL-2002; 2002US-0378653P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mendrick D, Porter M,
Elashoff M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       (GENE-) GENE LOGIC INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2003-731472/69.
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61 GCCATGGCTGACTTGGGAAATITTTGTGTAAGGCTGTCCATATCATCTACACT 120 180 402 240 283 GCCATGGCTGACTGGGAACTTTTTATGTAAGGCTGTGCATATCATCTACACC 342 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 343 GTCAACCTTTACAGCAGTGTTCTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCC 181 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAAGGCAGTCTAT Query Match 83.4%; Score 575.4; DB 9; Length 1050; Best Local Similarity 91.1%; Pred. No. 2.3e-153; Matches 628; Conservative 0; Mismatches 46; Indels 15; 121 g 임 à g ò ò

Human CXC-chemokine receptor-4 (CXCR-4) cDNA, AAZ38553 standard; cDNA; 1059 22-FEB-2000 (first entry) AAZ38553; AAZ3855 

CXC-chemokine receptor-4, CXCR-4, stromal cell derived factor-1, SDF-1, ligand, chemotaxis; inflammation, G-protein-coupled receptor; signal transduction, CD4-independent; HIV-1; infection, proliferation, transformation, tumorigenesis; cancer; tumour; overexpression, brain, breast; colon, lung; melanoma; glioblastoma; inhibition, growth arrest; diagnosis; prognosis; marker; proliferative disorders; antisense; therapy, treatment; premalignant condition; hypertrophy; degenerative disorder; Parkinson's disease, Alzheimer's disease; growth deficiency; hypoproliferative disorder; physical trauma; lesion; ischaemia; wound; ds

Homo sapiens

/\*tag= a /product= "Human CXCR-4" Location/Qualifiers 1. .1059

409950461-A1 07-0CT-1999 98US-0079916P 30-MAR-1998; 16-OCT-1998;

99WO-US007431

9-MAR-1999;

(NWBI-) NORTHWEST BIOTHERAPEUTICS INC.

This sequence represents CDNA encoding CXC-chemokine receptor-4 (CXCR-4).

Chemokine receptors play an important role in the chemotaxis of T-cells and phagocytic cells to areas of inflammation. CXCR-4 is a member of the card phagocytic cells to areas of inflammation. CXCR-4 is a member of the CG -protein-coupled receptor family, which is involved in signal transduction, and its ligand is stromal cell derived factor-1 (SDP-1, ANYS2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANYS2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANYS2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANYS2508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-CC ANYS2508). Experience of a number of cell types, including numerous primary tummours and derived cell lines. CXCR-4 is involved in cell transformation and colon tumours. It was complementally in brain, breast tumour tissues, colorectal and sorteneous proliferation of glioblascena cancer. CCC primary brain tumour derived cell proliferation of its gene function resulted in growth arrest. CCC and prognosis of cell proliferative disorders, and antisense complementary to at least a portion of an RNA transcript color according a disease or disorder involving cell overproliferation of a CXCR-4 gene can be used to inhibit hyperproliferation of a tumour preventing a disease or disorder involving cell overproliferation of a tumour color preventing a disease or disorder involving color can also be used for treating e.g., cirrhosis of the liver, keloid con also be used for treating a conditions, benign tumours, con also be used for treating a condition where coll proliferative disorders, and benign dysproliferation and also be used for treating a condition where coll proliferation or treating a disease or disorder involving a deficiency in coll proliferation or treating a disease or disorder involving a decidency in coll proliferation or disease include degenerative disorder involving edgenerative disord Use of CXCR-4 and SDF-1 as markers for diagnosis and treatment of tumors, degenerative disorders, growth deficiencies, hyper- and hypoproliferative disorders, physical trauma, lesions and wounds. Disclosure; Fig 14; 138pp; English Sehgal A; by ischaemia), and wounds Boynton AL, WPI; 2000-052634/04. P-PSDB; AAY52507 GP, 

Sequence 1059 BP; 244 A; 301 C; 232 G; 282 T; 0 U; 0 Other;

GICAACCICTACAGGAGGGIICICAICCIGGCCTICAICAGCCIGGACCGGIACCICGC 180 412 ATCGTCCACGCCACCCAACAGACGCCAAGGAAGCTGTTGCCTGAAAAGGTGGTCTAT 471 GTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300 472 diregecercredarecerecerecrecredararreceaerrearerringecaaee-- 529 301 AGCCAGGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGGCTTTACCCCGGAT 350 1 CTGCACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT crecaccretcaeresceaccrecretrateacecrrecerreressear GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCATATCATCTACACT 352 Grcaaccreracaddagreretreretrerengaetreareagreragaeteraceracerade 15; 75.0%; Score 517.2; DB 3; Length 1059; llarity 85.8%; Pred. No. 8.8e-137; Conservative 0; Mismatches 83; Indels 15; Local Similarity les 592; Conserv 61 121 232 241 Query Match g 8 8 ઠે 엄 8 셤 ठे

576 420 636 480 969 540 756 600 816 99 876 88 361 AGCTGTGGGTGGTGGTTTCAATTCCAGCATATAATGGTGGGTCTCATCTGCTGGC CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA CTGCCTTACTACATCGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 817 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGAGGCCCTAGCTTTC ------TCAGTGAGGCAGATGACAGATATATCTGTGACGGCTTCTACCCCAAT 577 GACTIGIGGGIGGITGIGITCCAGITTCAGCACATCATGATTGGCCTTATCCTGCCTGGT Arrercarccrerccrecrarrecarrarcarcrecaaecrercacacrecae CHITGCCIGCIGG GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC ATCGTCATCCTCTCTGTTACTGCATCATCTCTCTAAGCTGTCACACTCCAAGGGCCCAC Cysteine-X-cysteine chemokine receptor 4; CXC chemokine receptor 4; binding; identification; AIDS; HIV; CXCR4; virucide; anti-HIV; gene; 1059 / \*tag= a /\*tag= a /\*product= "Cysteine chemokine receptor 4" CXC chemokine receptor 4 encoding cDNA SEQ ID NO:125. CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT riccachdricrordaaccccarctrar 906 location/Qualifiers BP ABQ74938 standard; cDNA; 1059 27-OCT-2000; 2000US-0243587P. 20-WAR-2001; 2001US-00813448. 20-WAR-2001; 2001US-00813651. 20-WAR-2001; 2001US-00813653. 26-OCT-2001; 2001WO-US051165 30-OCT-2002 (first entry) WO200257313-A2 Homo sapiens. 25-JUL-2002 421 637 757 877 ABQ74938; 481 541 601 530 661 Human RESULT ð g ò 셤 ò 셤 ઠે ď ò g à g

receptor t Identifying a binding compound for cysteine-X-cysteine chemokine receptor (CXCR4) for preventing or treating AIDS and HIV infection, comprises binding a molecule to a molecule with a binding property corresponding Example 3; Fig 3A-B; 92pp; English P-PSDB; ABP52651.

Kratenansky

SA,

Kates

CA,

Tan Hehir

Wilson CJ,

Nestor JJ,

WPI; 2002-608378/65.

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411

CONS-) CONSENSUS PHARM INC.

120

291

CC The present invention describes a method (M1) for identifying a binding compound for cysteine-X-cysteine chemokine receptor 4 (CXCR4) comprises CC binding a molecule from the library of two or more molecules to the molecule with a binding property corresponding to CXCR4. (M1) comprises:

CC (a) providing a library of two or more molecules; (b) providing a complexity of two or more molecules; (b) providing a complexity of two or more molecules; (b) binding a complexity of two or more molecules to the molecule with a binding property corresponding to CXCR4; (d) separating the bound compound to the library of two or more molecules; and (e) identifying the bound molecule from the library of two or more molecules; and (e) identifying the bound molecule as a binding compound (CC CXCR4, Also described is a binding compound (I) for CXCR4 identified from M1. (I) has virucide and continuity or selection, identification and improvement of tight binding computation; in identifying therapeutically useful compounds. Therapeutic CC carrying out selection, identification and improvement of tight binding computation in the present sequence encodes human CXCR4 which is given in an account of an ample from the present invention. 8566666666666666666888

Chemokine receptor 4; CXCR4; gene; human; ss; chromosome 2q21;

AAH99952 standard; cDNA; 1059

RESULT 7 AAH99952

(first entry)

18-JUN-2002

CXCR4 encoding sequence

Human (HIV-1.

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GCCATGGCTGACTGGTACTTTGGGAAATTTTGTGTAAGGCTGTCGCATATCATCTACACT 120 ATGETCATCCTCTCTGTACTGCATCATCTACTAGCTGTCACACTCCAAGGGCCAC 480 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGGCTACCTGGCC 411 GTTGGCGTCTGGATCCCTGCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG-- 529 CAGAAGCGCAAGGCCCTCAAGACCACACTCATCCTCATCCTGGCTTTCTTCGCCTGTTTGG 756 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 876 292 GOGGIGGCARACTIGGTACTITIGGRACTITICTIATGCARGGCAGTCCATGTCATCTACACA 351 GICAACCICIACAGCAGCGIICTICAICCIGGCCIICAICAGCCIGGACGGGIACCICGCC 180 ATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTAT 471 GIGGGCGTCTGGATCCCAGCCCTCCTCATATACCTGACTTCATCTTTGCCGACGTC 300 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGCCTTTACCCCGAT 360 530 -----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 576 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 600 757 creccriaciacarregearcaecarceacricerrerecrecereeaaarcarcaacaa 816 1 CIGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60 Query Match 75.0%; Score 517.2; DB 6; Length 1059; Best Local Similarity 85.8%; Pred. No. 8.8e-137; Matches 592; Conservative 0; Mismatches 83; Indels 15; Gaps Sequence 1059 BP; 244 A; 301 C; 232 G; 282 T; 0 U; 0 Other; TICCACTGITGCCTGAACCCCCATCCTCTAT 690 TTCCACTGTTGTCTGAACCCCATCCTCTAT 906 352 697 61 121 181 412 241 472 421 637 481 541 601

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The invention relates to an isolated chemokine receptor 4 (CXCR4) polynucleotide which is useful for studying expression and function of hemokine receptor 4 and for the treatment of virtuess, including HIV-1. Methods associated with chemokine receptor 4 are useful for improving the efficacy and reliability of several steps in the discovery and development of drugs for treating diseases associated with CXCR4 activity, e.g., human immunodeficiency virus-1 infection. They can validate CXCR4 as a candidate agent for treating a specific condition or disease predicted to be associated with CXCR4 activity, and in the design of clinical trials of candidate drugs for treating a specific condition or disease predicted to be associated with CXCR4 activity. CXCR4 polynucleotides are useful for therapeutic purposes such as to treat HIV-1 infection and also are useful for studying expression of the CXCR4.
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85.8%; Pred. No. 8.8e-137;
ive 0; Mismatches 83; Indels 15;
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; 2001US-0350666P.
; 2002US-0355145P.
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13-NOV-2001;
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New genes that are up-regulated or down-regulated in cancers, useful a markers for diagnosing e.g. cancer, ischemia or heart diseases, or as therapeutic targets for screening drugs for treating these diseases.

WPI; 2003-354600/33. P-PSDB; ABR58580.

Claim 8; Page 650; 767pp; English

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The present invention describes an isolated nucleic acid molecule, which comprises the sequence of any of the genes that are up-regulated or down-cregulated in specific cancers (e.g. about 1031 genes up-regulated in acute lymphocytic leukemia). ACC75641 to ACC72860 represent cancer related gene nucleotide sequences which encode the proteins given in ARESS21 to ARESS009. Also described: (1) determining the presence or absence of a pathological cell in a patient; (2) an expression vector comprising the vector; (4) an isolated polypeptide, which is encoded by the nucleic acid, (5) an antibody that specifically binds the polypeptide of (4); (6) specifically targeting a compound to a pathological cell in a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a patient by administering to the patient the antibody above; and (7) a patient by actionary, cancer (e.g. cancer of the bone marrow, thermospheric targets. In particular, the nucleic acid is useful for atherosclerosis and endometriosis. The nucleic acid is also useful in a pathological and endometriosis. The nucleic acid is also useful in a pathological acid and section are pathological acid and section as the pathological acid and section and the pathological acid is also useful in a pathological acid and section are pathological acid and section acid 
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75.0%; Score 517.2; DB 7; Length 1059;
Best Local Similarity 85.8%; Pred. No. 8.8e-137;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
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bronchial epithelium, prostate; muscle, lung fibroblast, osteoblast,
tumour, microarray, genome mapping, antibiotic, antiviral, antifungal,
gene expression, gene, ss.
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identifications and in identifying promising antibiotics, antiviral antifungal agents

Sequence 1225 BP; 288 A; 324 C; 259 G; 354 T; 0 U; 0 Other;

88333

New gene expression profile generated from primary, endothelial, epithelial, and muscle cell types, useful for identifying disease pathologies involving alterations of gene expression, e.g. cancer. (ORTH ) ORTHO CLINICAL DIAGNOSTICS INC 20-MAR-2002; 2002WO-US008456. 20-MAR-2001; 2001US-0276947P WPI; 2002-740862/80. Wan J, Wang Y; WO200274979-A2 Homo sapiens 26-SEP-2002

Example 3; Page 827-828; 850pp; English

The invention relates to a gene expression profile comprising one or more genes (ABZ34889-ABZ35692) and generated from a cell type. The cell type is a coronary artery endothelium, umbilical artery or vein endothelium, cortic endothelium, prometrium microvascular endothelium, primonary artery endothelium, myometrium microvascular endothelium, prometrium microvascular endothelium, keratinocyte epithelium, bronchial epithelium, menal proximal tubule epithelium, prometrium microvascular endothelium, prostate epithelium, menal proximal tubule epithelium, massion endothelium, renal cortical epithelium, umbilical artery smooth muscle, neonatal dermal fibroblast, pulmonary artery smooth muscle, carrier smooth muscle, neural progenitor cells, skeletal muscle, astrocytes, cortic smooth muscle, uterine smooth muscle, lung fibroblast, cortical smooth muscle, uterine smooth muscle, lung fibroblast, cortical endoth muscle, uterine smooth muscle, lung fibroblast, cottodial smooth muscle, uterine smooth muscle, lung fibroblast, astrocytes, cottodials smooth muscle, uterine smooth muscle, proming cell types. The gene or a protein expression profile is useful in identifying disease pathologies involving calterations of gene expression for a sample, determining the level of RNA expression for a pathologies involving calterations of gene expression with respect to tumour type and stage, treatment methods, and prognosis. The gene or protein expression profile may also be used for creating microarrays. The microarray is useful for genetic and physical mapping of genemes, DNA sequencing, genetic or medical diagnosis, genetic, or medical diagnosis, genetic, and prognates and prognates. RESULT 9

AB223 5630

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signalling pathway population; cancer; adenocarcinoma; leukaemia;
immunopathy; AlDS; asthma; neuropathy; Alzheimer's disease; microarray
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                                    Gabs
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                                    83; Indels
     Score 517.2; DB 6;
Pred. No. 9.3e-137;
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                                   0; Mismatches
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Query Match 75.0%;
Best Local Similarity 85.8%;
Matches 592; Conservative (
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US6500938-B1 31-DEC-2002 

98US-00016434 (INCY-) INCYTE GENOMICS INC. Seilhamer JJ; 30-JAN-1998; 30-JAN-1998; Au-Young J,

WPI; 2003-352189/33

Combination of polynucleotide probes, useful as array elements in microarray for monitoring the expression of a number of target polynucleotides.

Claim 1; SEQ ID NO 1235; 65pp; English.

The invention relates to a combination which, comprises a number of polynucleotide probes comprising a sequence selected from one of the 1490 sequences mentioned in the specification. The combination is useful as an array element in a microarray for monitoring the expression of a number of target polynucleotides. The microarray is particularly useful in the diagnostics and treatment of cancer and immunopathology and neuropathology. The microarray is useful in diagnostics and treatment regimens, drug discovery and development, toxicological and carcinogenicity studies, of corensics and paramacogenomics. The microarray is also useful for monitoring progression of diseases and for developing sophisticated profiles for the effects of currently available therapeutic drugs. The combination is also useful for purifying a subpopulation of manks, cDNAs and genomic fragments and in research and diagnostic applications. The carray can detect changes in expression in a large number of genes coding for different signaling pathway populations which can be used to diagnose various diseases including cancer e.g. adenocarcinoma and leukaemia, immunopathies e.g. AlDS and aathma, neuropathies e.g. Alzheimer's disease and Parkinson's disease. The present sequence represents a polynucleotide form part of the printed specification but was obtained in electronic format directly from USPTO at \$100.000181881.

Sequence 1225 BP; 288 A; 324 C; 259 G; 354 T; 0 U; 0 Other;

Gaps 15; Match 75.0%; Score 517.2; DB 7; Length 1225; Local Similarity 85.8%; Pred. No. 9.3e-137; es 592; Conservative 0; Mismatches 83; Indels 15; Query Match

120 257 CTGCACCTGTCAGTGGCCGACCTCTTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 316 9 1 CIGCACCIGICAGIGGCIGACCICCTCTITGICALCACACICCCCTICIGGGCAGTIGAT GCCATGGCTGACTTTGGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 61 à 셤 ਨੇ

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AAV18357 standard; DNA; 1317 RESULT 11 AAV18357

ВР

AAV18357;

(first entry)

Human RM3 seven transmembrane (7TM) receptor cDNA.

V28; placenta; seven transmembrane receptor; 7TM; signal transduction; immunology; inflammation; RM3; ss.

sapiens

/\*tag= a /product= "Human RM3 seven transmembrane receptor" Location/Qualifiers 201. .1211 Key

US5759804-A 02-JUN-1998

93US-00153848. 92US-00977452. 17-NOV-1993; 17-NOV-1992; 

(ICOS-) ICOS CORP

Godiska R, Gray PW; Schweickart VL,

WPI; 1998-332132/29. P-PSDB; AAW48734.

DNA encoding V28 seven transmembrane receptor polypeptide - useful for producing recombinant polypeptide and anti-V28 antibodies, and in screening assays for V28 agonists and antagonists.

Example 11; Col 89-94; 56pp; English.

The present novel sequence represents the human RM3 cDNA isolated from a human macrophage cDNA library. The invention claims for the full length V28 genomic DNA sequence (AAV18343) isolated from a human placenta genomic library. The V28 (AAW48722) and RM3 proteins are seven transmembrane (7TM) receptors which are probably involved in signal transduction. The invention also claims that cells transformed with V28

us-09-367-052-3.rng

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The present sequence is a novel coding sequence for a seven transmembrane (TTM) receptors (also known as heptahelical, serpentine or G-protein-coupled receptors). The present sequence may be used for gene therapy for diseases such as cancer
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75.0%; Score 517.2; DB 3; Length 1317;
Best Local Similarity 85.8%; Pred. No. 9.6e-137;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
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93US-00153848.
94US-00245242.
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01-JUN-1998;
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DNA can be used to produce the recombinant polypeptide, to produce anti-
V28 antibodies or in screening assays for V28 agonists or antagonists. The antibodies, agonists and antagonists could then be used to modulate V28 receptor-ligand binding, for e.g. in immunological and/or inflammatory events in vivo
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RM3; gene therapy;
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                                                                                                      Length 1317;
                                                                           Sequence 1317 BP; 332 A; 342 C; 265 G; 378 T; 0 U; 0 Other;
                                                                                                    Score 517.2; DB 2; Length
Pred. No. 9.6e-137;
0; Mismatches 83; Indels
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R20; R2; R12;
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G-protein-coupled, V28; V31; V112;
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Best Local Similarity 85.8%;
Matches 592; Conservative 0
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The invention relates to a purified and isolated R2 seven transmembrane (7TM) receptor. Also included are an anti-R2 antibody, a hybridoma producing the antibody, antigenic peptide fragments of R2, an antiserum produced by immunising a mammal with a composition comprising R2 or its fragment, where the fragment comprises at least one R2 extracellular or intracellular domain, and obtaining antiserum from the mammal after the immunising step, where the antiserum contains antibodies that bind to the R2 7TW receptor, a polynucleotide encoding 7TM receptor R2 and a host cell stably transformed or transfected with the polynucleotide allowing the expression of R2 in the host cell. The antibody is useful for modulating ligand/antiligand binding of a R2 7TM receptor, especially the expression of R2 in the host cell. The antibody is useful for inflammatory events in vivo. R2 is useful for producing antibodical and/or inflammatory events in vivo. R2 is useful for producing antibodical and/or antibodies, for purifying R2 polypeptides, for identifying cells producing the polypeptides on their surfaces and for the detection and quantification of 7TM receptors on cell surfaces and in fluids. The
                                                                                                                            GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 1031
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852 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                    601 GGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC
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                                  CTGCCATATTATGGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
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93US-00153848.
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17-NOV-1993;
17-MAY-1994;
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polynucleotide is useful in DNA/RNA hybridisation assays to detect the capacity of cells to synthesies a TTM receptor. The host cell is useful for large scale production of TTM receptors, and in assays for identifying antagonist or agonists of TTM receptor binding. Other TTM receptors isolated in this study include V31 (located on chromosome 17q12-21.2, associated with familial brest cancer), V28 (Chromosome 3p21-ter, associated with von Hippel-Lindau syndrome, thyroid hormone resistance, small call cancer of the lung and pseudo-Zellweger syndrome), R20 (chromosome 11 p11-p13 associated with hypoprothrombinaemia), V112 and R12. The present sequence is a polymucleotide encoding a 7TM receptor of the invention
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                                                                                                                                                                                                                          Query Match 75.0%; Score 517.2; DB 6; Length 1317; Best Local Similarity 85.8%; Pred. No. 9.6e-137; Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                            Sequence 1317 BP; 332 A; 342 C; 265 G; 378 T; 0 U; 0 Other;
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New polypeptide capable of binding nucleic acids for treating or preventing a disease caused by a virus or a disease associated with immune response, particularly autoimmune diseases e.g. inflammation rheumatoid arthritis.
                                    Receptor; virus infection; immune response; autoimmune disease; TNFR1 receptor; inflammation; autoimmune encephalomyelitis; rheumatoid arthritis; myocarditis; CXCR4 receptor; ds.
                                                                                                                                                                                              Ullman C,
                                                                                                                                                                                                                                                                                       Disclosure; Page 12-13; 105pp; English
                                                                                                                                                                                             Reynolds L,
                                                                                                                                                                           (SANG-) SANGAMO BIOSCIENCES INC.
                                                                                                                                                22-JAN-2001; 2001GB-00001576,
                                                                                                                              22-JAN-2002; 2002WO-GB000246
                  CXCR4 receptor DNA sequence
15-NOV-2002 (first entry)
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Best Local Similarity 85.8 Matches 592, Conservative
                                                                                                                                                                                            Moore M, Isalan M,
Demaison C, Choo Y;
                                                                                                                                                                                                                         WPI; 2002-590720/63.
                                                                                          WO200257308-A2.
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Girdlestone

The present invention relates to a new polypeptide capable of binding to a nucleic acid comprising a receptor nucleotide sequence which can function as a receptor for virus infection or is involved in an immune response. The molecules of the invention are useful in the treatment or prevention of a disease caused by a virus or of a disease associated with an infunction of a disease caused by a virus or of a disease associated with polypeptide or a nucleic acid encoding such a polypeptide can be used to modulate transcription of a receptor nucleotide sequence. The nucleic acid encoding such a polypeptide can be used to modulate transcription of a receptor nucleotide sequence. The nucleic acid encoding such a polypeptide can be used to the preparation of a mucleic acid encoding such a polypeptide, can be used in the preparation of a medicament for use in the treatment or prevention of a disease caused by a virus or of a disease associated with or caused by malfunction of the receptor as the TNR1 receptor, such as autoimmune farbranding are the preparation, autoimmune enceptor in sequence represents a artharities or myocardities. The present uncleic acid sequence represents a contract or the artharities or myocardities. The present uncleic acid sequence represents a contraction of a disease in the invention 180 240 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 402 282 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 342 9 CTGCACCTGTCAGTGGGCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC Greakeererakeagagagacereareeregeerreareaceregageeraceregee 15; 75.0%; Score 517.2; DB 6; Length 1582; 85.8%; Pred. No. 1e-136; Indels 15; ive 0; Mismatches 83; Indels 15; Sequence 1582 BP; 386 A; 376 C; 333 G; 487 T; 0 U; 0 Other; 61 121 343 283 181 g à g à

462 300 520 360 567 420 627 480 687 540 747 600 807 999 867 40 GACTTGTGGGTGGTTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGGCTTGGT CAGAAGCGCAAGGCCCTCAAGACCACACATCCTCATCCTGGCTTTCTTCGCCTGTTGG CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA GGATGTGACTTCGAGGACATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC GTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTGCCAACG--AGCCAGGGGGGCATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC ATOGICATOCIOTOCOGITACIGCATOATCATOTAAGCIGICACACTCCAAGGGCCAC This sequence encodes the human CXCR4 protein. The invention relates CXCR4; human; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss. CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers. TICCACIGIIGCCIGAACCCCAICCICIAI 690 TTCCACTGTTGTCTGAACCCCATCCTCTAT 897 콗 Disclosure; Page 48-49; 63pp; Japanese Tachibana BD AAZ27610 standard; DNA; 1588 99WO-JP001448. 98JP-00095448 Human CXCR4 coding sequence (CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T. Kishimoto T, Nagasawa T, WPI; 1999-591042/50. P-PSDB; AAY39993. 23-MAR-1999; 24-MAR-1998; Homo sapiens 16-DEC-1999 WO9948528-A1 30-SEP-1999 889 808 403 241 463 301 568 421 628 541 748 601 868 AAZ27610; 481 199 521 셤 g d à 셤 8 셤 ò g ठे ò à g õ ò g

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remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies
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75.0%; Score 517.2; DB 2; Length 1588;
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Matches 592; Conservative 0; Mismatches 83; Indels 15;
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Search completed: May 17, 2004, 06:37:05 Job time : 298.894 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

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IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

682709 segs, 277475446 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Issued Patents NA:\*

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5: /cgn2\_6/ptodata/2/ina/PCTUS\_COMB.seq:\*

6: /cgn2\_6/ptodata/2/ina/PcTUS\_COMB.seq:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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RESULT 2
US-08-153-848-45
JOS-08-153-848-45
Sequence 45, Application US/08153848
Fatent No. 5759804
GENERAL INPORMATION:
APPLICANT: Godiska Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Chicago
STATE: Illinois
COUNTRY: USA COMPUTER READABLE FORM:
MEDIUM TYPE: Ploppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS

121 GICAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCC 180 241 GIGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTC 300 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACGCCTTTACCCCCGAT 360 421 ATCGTCATCCTCTCTGCTTACTGCATCATCTTAAGCTGTCACACACCCCAAGGGCCCAC 480 627 dindáciditábantetendetetetethethatraktantetetakentetatentratetaked-- 684 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 447 GCCGIGGCAAACIGGTACITIGGGAACIICCIAIGCAAGGCAGICCAIGICAICIACACA 567 ATCGTCCACCACCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCAT 685 -------rcagradacadardacadarararcigidaccecricitaccear 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATACACT 541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 75.0%; Score 517.2; DB 1; Length 1317; 85.8%; Pred. No. 6e-140; tive 0; Mismatches 83; Indels 15; SOFTWARE: Patentin Release #1.0, vers
CURRENT APPLICATION DATA;
PAPLICATION NUMBER: US/08/153,848
FILING DATE:
CLASSIFICATION: 514
PRIOR APPLICATION DATA;
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY FAGENT INFORMATION:
NAME: NO. 5759804and, Greta E.
REGISTRATION NUMBER: 31794
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-630
TELEPHONE: (312) 474-648
TELEFAX: (312) 474-648
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-648
TELEPHONE: (312) 474-648
TELEPHONE: (312) 474-648
TELEPHONE: (312) 474-648
TELECOMMUNICATION:
TELEPHONE: (312) 474-648 Query Match
Best Local Similarity 85.8
Matches 592; Conservative NAME/KEY: CDS ; LOCATION: 201..1211 US-08-153-848-45 481 g g g d 8 8 d ð 8 ò

446 120 506 626

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601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660

us-09-367-052-3.rni

	9y 121 GTCAACCTCTACAGCAGCGTTCTATCCTGGCCTTGATCAGCCTGGACCGGTACCTCGCC 180	OY 181 ATTGTCCACGACCACGACGGTCAAGGAAACTGCTGGCTGAAAAGGCAGTCTAT 240	627 GITGGGGICTGGATCCCTGCTGCTGATTCCCGACTTCATCTTTGCCAACG	QY 301 AGCCAGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360	Qy 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTGGTTCTCATCCTGCCCGGC 420	421 ATCGTCATCCTCTGTTACTGCATCATCTTCTAAAGTGTCACACTCCAAAGGCCCAC	Db 792 ATTGTCATCTGTCTGCTATTGCATTATCATCTCCAAGGCTGTCAAGGGCCAC 851  Qy 481 CAGAAGGCAAAGGCCTCAAGACGACAGTCATCCTATCTTTGCTGCTGCTGG 540  Db 852 CAGAAGGCAAAGGCCTCAAAAACAAAAAAAAAAAAAAAA	541 CIGCCATATTATGTGGGGATCAGCATCCACTCATCCTTTTGGGAGTCATCAGCAA 512 CIGCCTACTACATTGGGATCAGCATCGACTTCATCCTTCATCCTGGAATCAGCAA	601 GGATGTGACTTCGAGAGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTTCGCCTTC	Oy         661         TTCCACTGTTGCCTGAACCCCATCCTCTAT         690           Db         1032         TTCCACTGTTGTCTGAACCCCTTAT         1061	SULT 4	US-09-088-3378-45; Sequence 45, Application US/09088337B ; Patent No. 6348574 ; GENERAL INFORMATION: 1, APPLITEMENT CANAGES DOMAIA	Gray, Patrick W.  Schwelkart, Vicki L.  TITLE OF INVENTION: No. 6348574el Seven Transmembrane Receptors  NUMBER OF SEQUENCES: 6	; CORRESPONDENCE ADDRESS: ; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & : Rorin	STREET: 6300 Sears Tower, 233 South Wacker Drive (TTY: Chicago	COUNTRY: USA  ZIP: 60606  COMPUTER READABLE FORM:	MEDIUM TYPE: Floppy disk  COMPUTER: IBM PC compatible  PERATURG SYSTEM: PC-DOS/MS-DOS  SOFTWARE: Patentin Release #1.0, Version #1.25	APPLICATION NUMBER: US/09/088,3378  PILING DATE: 01-Jun-1998 CLASSIFICATION: -CURNOWN PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: US 08/153,848
	Qy 661 TTCCACTGTTGCCTGAACCCCATCTTTT 690  1032 TTCCACTGTTGTCTGAACCCCATCTTTT 1061	RESULT 3 US-09-299-843A-45 ; Sequence 45, Application US/09299843A ; Patent No. 6107475	GENERAL INFORMATION:  * APPLICANT: Godiska, Ronald	APPLICANT: Gray, Parizok W.  APPLICANT: Schweikart, Vicki L.  TITLE OF INVENTION: No. 6107475el Seven Transmembrane Receptors  NUMBER OF SEQUENCES: 66	; CORRESPONDENCE ADDRESS: ; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ; ADDRESSEE: Borum ; GTBERF, 6300 GARY MONDE, 332 GOUTH WINDOW Deited	Chicago 3: Illinois RR: USA	JIP: 60606 COMPUTER READABLE FORM: COMPUTER: IBA PC compatible COMPUTER: IBA PC compatible COMPUTER: IBA PC compatible	SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/299,843A FILING DATE:	CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER: 08 09/088,337 FILING DATE: 01-UUN-1998	; PRIOR APPLICATION DATA: ; APPLICATION NUMBER: US 08/153,848 ; FILING DATE: 17-NOV-1993 ; PRIOR APPLICATION DATA:	rim -	NAME: J11 E ULI	(312) 47 (SEQ II	; IENGTH: 1317 base pairs ; TYPE: nucleic acid ; STRANDEDNESS: single	TOPOLOGY: linear NOLECULE TYPE: cDNA FRATHRE:	; NAME/KEY: CDS ; LOCATION: 2011211 US-09-299-843A-45	Query Match Best Local Similarity 85.8%; Pred. No. 6e-140; Matches 592; Conservative 0; Mismatches 83; Indels 15; Gaps 1;	Qy 1 CTGCACCTGTCAGTGACTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60

FILING DATE: 17-NOV-1993
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: No. 6348574and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31794
TELEPRONE: (312) 474-6300
TELEPRONE: (312) 474-6300
TELEPRONE: (312) 474-6448
ITELERAX: (212) 474-0448
ITELERAX: (212) 474-0448
ITELERAX: 25-3856
INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
LENGTH: 1317 base pairs
TYPE: nucleic acid
STYPE: nucleic acid
STYPE: nucleic acid

TOPOLOGY: linear MOLECULE TYPE: cDNA

, NAME/KEY: CDS ; EOCATION: 201.1211 ; SEQUENCE DESCRIPTION: SEQ ID NO: 45: US-09-088-3378-45

Gaps Query Match 75.0%; Score 517.2; DB 4; Length 1317; Best Local Similarity 85.8%; Pred. No. 6e-140; Matches 592; Conservative 0; Mismatches 83; Indels 15;

1 CTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60

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61 GCCATGGCTGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATGTACACT 120

181 ATTGTCCACGCACCAACAGTCAAAGGCCAAAGGAAACTGCTGGAAAAGGCAGTCTAT 240

421 ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACCACCAAGGGCCAC 480 

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TICCACTGITGCCTGAACCCCATCCTCTAI 690

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1032 TICCACTGTTGTCTGAACCCCATCCTCTAT 1061

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PCT-US93-11153-45
Sequence 45, Application PC/TUS9311153
GENERAL INFORMATION:
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: GGGISKA, Ronald
APPLICANT: SCHWEIKAR, W.
TITLE OF INVENTION: Novel Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
ADDRESSEE: Bicknell

ADDRESSEE: Bicknell
STREET: 6300 Sears Tower, 233 South Wacker Drive
GTYY: Chicago
STRATE: 111inois
COUNTRY: USA
ZIP: 60606
COMPUTER: EADABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: EMP PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US93/11153
FILING DATE:
CLASSIFICATION NUMBER: US 07/977,452
FILING DATE:
APPLICATION NUMBER: US 07/977,452
FILING DATE:
CLASSIFICATION NUMBER: US 07/977,452
FILING DATE:
APPLICATION NUMBER:
APPLICATIO

hame/KEY: CDS COCATION: 201..1211 PCT-US93-11153-45

75.0%; Score 517.2; DB 5; Length 1317; 85.8%; Pred. No. 6e-140; tive 0; Mismatches 83; Indels 15; Best Local Similarity 85.8 Matches 592, Conservative Query Match

387 CTGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT

61 GCCATGGCTGACTGGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 447 eccerescanacrestratrassanatricciniscanseses ercentercaratracaca

ò g 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 507 GICAACTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGCTACCTGGCC

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CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0001
TELECOMMUNICATION INFORMATION: PRIOR APPLICATION DATA: APPLICATION NUMBER: FILING DATE: RESULT 7 US-09-023-655-1213 541 601 421 909 셤 δ 셤 ò 셤 S G  $\dot{\delta}$ g ठ 8 S g ò a ठ 972 GGGIGTGAGATTTGAGAACACTGTGCACAAGTGGATTTCCATCACCAAGGCCCTAGCTTTC 1031 99 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 180 480 540 911 900 971 367 GCCGIGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 427 487 GIGGGCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTC 300 361 AGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 420 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA CIGCACCTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAA 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT -----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 421 ATCGTCATCCTCTCCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCCAC GGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 15; Indels Query Match 75.0%; Score 517.2; DB 4; Best Local Similarity 85.8%; Pred. No. 6.7e-140; Matches 592; Conservative 0; Mismatches 83; Sequence 5, Application US/09582224A
Sequence 5, Application US/09582224A
Setent No. 6429308
GENERAL INFORMATION:
APPLICANT: IUJIMA, Osemu
APPLICANT: GOTO, Takeshi
APPLICANT: SHIMADA, Takeshi
TITLE OF INVENTION: HIV Infection Inhibitors
FILE REPERENCE:
CURRENT APPLICATION NUMBER: US/09/582,224A
CURRENT APPLICATION NUMBER: US/09/582,224A
CURRENT APPLICATION NUMBER: PCT/JP99/06534
PRIOR FILING DATE: 1999/11/24
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Microsoft Word
SEQ ID NO 5
LENGTH: 1664 TYPE: DNA
CRGANISM: Artificial Sequence
FEATURE:
CONTREMINORMATION: CDNA OF CXCR4
US-09-582-224A-5 241 627 685 481 541 912 601 61 368 428 8 8 8 ద g 8 8 8 8 6 8 品 谷 品 ⋧ 6 6 6 **강** 쉽

US-US-US-1213

Sequence 1213, Application US/09023655

Sequence 1213, Application US/09023655

Patent No. 6607879

GENERAL INFORMATION:

APPLICANT: Cocke Benjamin G.

STREET: 3174 PORTER DRIVE

COUNTRY: USA

CONTRY: USA

CONTRY: USA

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC Compatible

OPPRATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2

FILING DATE: HERBWITH

COASITION UNMERR: US/09/023,655

FILING DATE: HERBWITH

COASITION NUMBER: Cocke 547 360 420 712 480 772 540 832 600 892 952 833 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCTGGAAATCATCAAGCAA 893 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC 361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC ATCGTCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCCAC 481 CAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTCATCCTTTGCCTGG GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT

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                                                                                                                                                                                                  Query Match 75.0%; Score 517.2; DB 4; Length Best Local Similarity 85.8%; Pred. No. 6.7e-140; Matches 592; Conservative 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TICCACTGITGCCIGAACCCCAICCICIAT 690
TELEPHONE: (650) 855-0555
TELEPAX: (650) 845-4166
INFORMATION FOR SEQ ID NO: 121
SEQUENCE CHARACTERISTICS:
                                                        TYPE: nucleic acid
                                                                                                                                                                                                                                                                                            308
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500 AICGICCACGCCACCAACAGICAGAGGCCAAGGAAGCIGITGGCIGAAAAGGIGGICTAI

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GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC

CIGCACCIGICAGIGGCGACCICCTCITIGICAICACGCTICCCTICTGGGCAGITGAI GCCATGGCTGACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT eccercecaacrecraterrrecaacricerarecaaceacacrecarereracae

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CIGCACCIGICAGIGGCIGACCICCICITIGICATCACACICCCCITCIGGGCAGITGAT

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Score 517.2; DB 4; Length Pred. No. 6.7e-140; 0; Mismatches 83; Indels

Query Match Best Local Similarity 85.8%; Matches 592; Conservative

APPLICANT: van Kooyk, Yvette
APPLICANT: Geijtenbeck, Tneo
TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF
TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF
TITLE OF INVENTION: CELLS
FILE REFERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/09/517,605
CURRENT FILING DATE: 2000-03-02
NUMBER OF SEQ ID NOS: 17
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 14
LENGTH: 1679
TYPE: DNA
TYPE: DNA
CRGANISM: Homo sapiens
US-09-517-605-14

QF

361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC

ATCGICALCCICTCCTGTIACTGCATCATCATCTCTAAGCTGTCACACTCCAAGGGGCCAC

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845 CTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCGGAAATCATCAAGCAA 904

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CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA

601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC

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301 AGCCAGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT

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RESULT 9
US-08-202-056-4
IS-08-202-056-4
Paguence 4, Application US/08202056
Patent No. 5440021
GENERAL INFORMATION:
```

Sequence 14, Application US/09517605 Patent No. 6391567 GENERAL INFORMATION: APPLICANT: Littman, Dan R. APPLICANT: Kwon, Douglas S.

1

.09-517-605-14

à APPLICANT: Chuntharapai, Anan APPLICANT: Hebert, Caroline APPLICANT: Kim, Kyung Jin APPLICANT: Leb, James Tills of NUVERTION: Antibodies to Human IL-8 Type B Receptor SEQUENCE: B SEQUENCES: ADBRESSE: Genenteeh, Inc. STREET: 460 Point San Bruno Blvd CITY: South Ban Francisco STREET: 460 Point San Bruno Blvd CITY: South Ban Francisco STREET: 460 Point San Bruno Blvd CITY: South Ban Francisco STREET: 460 Point San Bruno Blvd CITY: South Ban Francisco STREET: 460 Point San Bruno Blvd CITY: 100 Point San Bruno Blvd CITY: 100 Point San Bruno Blvd CITY: 100 Point San Bruno Blvd COMPUTER: LIBM PC compatible Point San Bruno Blvd COMPUTER: LIBM PC compatible Point San Bruno Blvd COMPUTER: Datin Generatech) COMPUTER: Datin Generatech) COMPUTER: Datin Generatech) CURRENT APPLICATION DATA: 105/08/202,056

FILING DATE: 25-FEB-1994
CLASSIFICATION NUMBER: 07/677211
ATTORNEY/ABET INPERMATION: 106

REFERENCE/DOCKTY NUMBER: 10659

REFERENCE/DOCKTY NUMBER: 10699

TELEBRONE: 100/311-1716

TELEBRONE: 101/31-1716

INFORMATION POR SEQ ID NO: 4: 12107 Dases

TTPE: nucleic acid STRANDENESS: single

TOPOLOGY: 1 linear

US-08-202-056-4: 1.22-530

1771 · C - 7CO - / OC - CO - RT

146 MAY 10 13.34.12 2001

-----TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT 666 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120 382 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 441 502 ATCGTCCACGCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCATT 561 241 GIGGGCGTCTGGATCCCAGCCCTCCTCCTATACCTGACTTCATCTTTGCCGACGTC 300 562 GITGGCGTCTGGATCCCTGCCTCCTGCTGATTTTCCCGACTTCATCTTTGCCAACG-- 619 301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360 442 GICAACCTCTACAGCAGIGICCTCAICCTGGCCTICAGICTGGACCGCTACCTGGCC 501 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT 60 322 CTGCACCTGTCAGTGGCCGACCTCCTCTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 361 AGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCGGC 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGGTACCTCGCC Query Match 75.0%; Score 517.2; DB 1; Length 1737; Best Local Similarity 85.8%; Pred. No. 6.8e-140; Matches 592; Conservative 0; Mismatches 83; Indels 15; Gaps 620 d ò à g ò 셤 ठ

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Pred. No. 6.8e-140;
0; Mismatches 83;
708/701,265
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Best Local Similarity 85.8%;
Matches 592; Conservative 0
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TYPE: Nucleic Acid
TYPE: Nucleic Acid
TYPE: TRANDEDNESS: Single
TOPOLOGY: Linear
US-08-701-265-3
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy of COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech)
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STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
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US-08-701-265-3
; Sequence 3, Application US/08701265
; Patent No. 5776457
; GENERAL INFORMATION:
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                                                                                                                         RESULT 13
US-08-805-478-3
is Sequence 3, Application US/08805478
is Patent No. 587443
is GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: ANTHONION:
APPLICANT: ANTHONION:
ANTHONION: ANTHONIES TO PF4A RECEPTOR
INTILE OF INVENTION: ANTHONIES OF CORRESPONDENCE Sequence, Inc.
STREET: AGO POINT San Bruno Blvd
CITY: South San Francisco
STREET: California
COUNTER: California
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FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UUN-1993
PRIOR APPLICATION DATA:
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CLASSIFICATION: 530
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 3, Application US/08284586
Patent No. 5840856
GENERALTON:
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: APENCENT:
APPLICANT: ALS APPLICANT: ALS APPLICANT: AP
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Pred. No. 6.8e-140;
0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPOTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
FILING DATE:
                                                                                                                                                                                                                            967 TICCACTGTTGTCTGAACCCCATCCTCTAT 996
                                                                                                                                                    661 TICCACTGTTGCCTGAACCCCATCCTCTAT 690
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PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/677211
APPLICATION NUMBER: 07/677211
APPLICATION NUMBER: 34,659
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B
REGISTRATION NUMBER: 34,659
REPRENCE/DOCKET NUMBER: 706F2
TELECOMMUNICATION INFORMATION:
TELECHONE: 415/25-5530
TELERAX: 415/25-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Generatech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
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INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 nucleotides
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Best Local Similarity 85.8%;
Matches 592; Conservative
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STRANDEDNESS: Sing
TOPOLOGY: Linear
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TELEX: 91
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US-08-284-586-3
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Sequence 3, Application US/08802627A
Patent No. 5892017
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Wood, William I.
IITLE OF INVENTION: NUCLEIC ACID ENCODING PF4A RECEPTOR NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genertech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
COUNTRY: USA
MEDIUM TYPE: 35 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OCMPUTER: 19-F0-1997
CLASSIFICATION NUMBER: US/08/802,627A
FILING DATE: 10-F0-1997
CLASSIFICATION NUMBER: US/08/802,627A
FILING DATE: 10-MUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UTN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 13-DEC-191
APPLICATION NUMBER: 13-DEC-191
ATTORNEY/AGBNT INFORMATION
NAME: LOVE, SICHARD NUMBER: 13-CAPA
REGISTRATION NUMBER: 13-CAPA
REGIST
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REPERENCE/DOCKET NUMBER: P0706P2P1D2
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/25-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 85.8
Matches 592, Conservative
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TOPOLOGY: Li
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 75.0%; Score 517.2; DB 2; Best Local Similarity 85.8%; Pred. No. 6.8e-140; Matches 592; Conservative 0; Mismatches 83;
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                                                                                                                                                P0706P2P1C1
                          FILING DATE: 19-DEC-1991
ATTORNAY AGENT INFORMATION:
NAME: LOVE, RICHARD 18,659
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: P0706
TELECOMMUNICATION INFORMATION:
TELEFAX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1/37 base pairs
TYPE: NUCleic Acid
STRANDENESS: Single
        APPLICATION NUMBER: 07/810782
                                                                                                                                                                                                                                                                                                                                                                                                                  ; TOPOLOGY: Linear
US-08-805-478-3
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240 381 441 121 GTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180 561 241 GIGGCCGICTGCATCCCAGCCCTCCTCAACTAIACCIGACTICAICTTIGCCGACGIC 300 562 GTTGGCGTCTGGATCCCTGCCTCCTGACTATTCCCGACTTCATCTTTGCCAACG-- 619 301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGT 360 61 GCCATGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 382 eccereccaaacresracrireccaacriccrarecaaeccaerecarereracraca 502 Arcerceaeceaecaecaercaeeceaaeeceaaeeaecrerreecreaaaaeereerar 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT Length 1737; Indels 75.0%; Score 517.2; DB 2; 85.8%; Pred. No. 6.8e-140; iive 0; Mismatches 83; g

RESULT 14 US-08-802-627A-3

us-09-367-052-3.rni

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-----TCAGTGAGGCAGATGACAGATATCTGTGAGACGCTTCTACCCCAAT
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disl
COMPUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MAIDFALIN (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/801,238
FILING DATE: 19-Feb-1997
CLASSIFCATION DATA:
APPLICATION NUMBER: 08/284566
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-UN-1993
PRIOR APPLICATION NUMBER: 09/076093
FILING DATE: 11-UN-1993
PRIOR APPLICATION NUMBER: 34,659
FILING DATE: 11-DEC-1991
ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHARD SIGNAMES: PO706P2P1D1
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TICCACTGITGCCTGAACCCCATCCTCTAT 690
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US-08-801-238-3
is Sequence 3: Application US/08801238
is Patent No. 519896
GENERAL INFORMATION:
APPLICANT: Lee, James
ITILE OF INVENTION: PP4A RECEPTOR
INTERPORT OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
CONNTRY: USA
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                                                                                                                                                                              382 GCCGGGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA
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                                                                                                                                                                61 GCCATGGCTGACTGGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT
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                                                                                      Gaps
                                                                                      15;
                                                            Length 1737;
                                                                                      Indels
                                                                                                               1 CTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCT
                                                            75.0%; Score 517.2; DB 2;
85.8%; Pred. No. 6.8e-140;
iive 0; Mismatches 83;
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Job time : 59.2446 secs
                                                                        Best Local Similarity 85.8
Matches 592, Conservative
; TYPE: Nucleic Acid
; STAMDEDNESS: Single
; TOPOLOGY: Linear
US-08-801-238-3
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## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

parch time 337.746 Seconds (without alignments) 9271.041 Million cell updates/sec	US-09-367-052-3 690 1 ctgcacctgtcagtggctgagcctgaaccccatcctcat 690	
S S S S S S		
<pre>May 17, 2004, 12:11:00 ; Search time 337.746 Seconds</pre>	US-09-367-052-3 690 1 ctgcacctgtcagtggctga	IDENTITY_NUC Gapop 10.0 , Gapext 1.0
Run on:	Title: Perfect score: Sequence:	Scoring table: IDENTITY_NUC Gapop 10.0 ,

Searched: 2947324 seqs, 2269024515 residues Total number of hits satisfying chosen parameters:

Minimum DB seg length: 0 Maximum DB seg length: 200000000 Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Published Applications NA:\*

| cgn2\_6/ptodata/1/pubpna/US07\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/PCT\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/PCT\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US06\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US06\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US08\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US08\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US08\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US08\_PUBCOMB.seq:\*
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| cgn2\_6/ptodata/1/pubpna/US09\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US09\_NBW\_PUB.seq:\*
| cgn2\_6/ptodata/1/pubpna/US00\_NBW\_PUB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Sequence 1, Appli	Sequence 84, Appl	Sequence 125, App	Sequence 2, Appli	Sequence 741, App	Sequence 1235, Ap	Sequence 1213, Ap	Sequence 2143, Ap	Sequence 636, App	Sequence 1, Appli	Sequence 77, Appl	Sequence 80, Appl	Sequence 9, Appli	Sequence 912, App
US-10-160-401-1	US-09-813-651B-84	US-10-014-322A-125	US-10-160-401-2	US-10-101-510-741	US-10-305-720-1235	US-10-641-643-1213	US-09-880-107-2143	US-09-960-106-636	US-10-372-683-1	US-10-440-464-77	US-10-211-462-80	US-10-181-906-9	US-10-342-887-912
16	13	15	16	15	16	17	σ	10	16	16	13	13	13
5161	1059	1059	1059	1225	1225	1664	1670	1670	1670	1670	1679	1679	1679
75.1	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
518	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2
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	75.1 5161 16 US-10-160-401-1	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-101-510-741	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-101-510-741 75.0 1225 16 US-10-305-720-1235	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-101-510-741 75.0 1225 16 US-10-60-401-510-75 75.0 1225 17 US-10-641-643-1213	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-611B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-101-510-741 75.0 1225 16 US-10-35-720-1235 75.0 164 17 US-10-641-643-1213 75.0 1664 17 US-09-880-107-2143	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125 75.0 1225 16 US-10-160-401-2 75.0 1225 15 US-10-101-510-741 75.0 1225 16 US-10-305-720-1235 75.0 1670 10 US-10-641-643-1213 75.0 1670 10 US-09-960-706-636	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-651B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-160-401-2 75.0 1225 16 US-10-305-720-1235 75.0 1664 17 US-10-641-643-1213 75.0 1670 10 US-09-800-106-636 75.0 1670 10 US-09-800-106-636	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-611B-84 75.0 1059 15 US-10-160-401-2 75.0 1225 15 US-10-160-401-2 75.0 1225 15 US-10-161-510-741 75.0 1225 16 US-10-161-510-741 75.0 1664 17 US-10-643-1213 75.0 1670 9 US-09-880-107-2143 75.0 1670 10 US-09-960-766-636 75.0 1670 16 US-10-643-77 75.0 1670 16 US-10-440-464-77	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-61B-84 75.0 1059 15 US-10-014-322A-125 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-160-401-2 75.0 1225 16 US-10-161-741 75.0 1670 9 US-09-800-107-2143 75.0 1670 9 US-09-960-706-636 75.0 1670 10 US-09-960-706-636 75.0 1670 10 US-09-960-706-636 75.0 1670 16 US-10-440-440-77 75.0 1679 13 US-10-441-462-80	75.1 5161 16 US-10-160-401-1 75.0 1059 13 US-09-813-6518-84 75.0 1059 15 US-10-160-401-2 75.0 1059 16 US-10-160-401-2 75.0 1225 15 US-10-160-401-2 75.0 1225 15 US-10-101-510-741 75.0 1664 17 US-10-641-643-1213 75.0 1670 10 US-09-860-107-2143 75.0 1670 16 US-10-372-681-1 75.0 1670 16 US-10-372-680-775-0 75.0 1670 16 US-10-372-680-775-0 75.0 1679 13 US-10-181-462-80

Sequence 14, Appl Sequence 912, App	Sequence 332, App	Sequence 75, Appl	Seguence 58, Appl	Sequence 177, App	Sequence 20, Appl	Sequence 459, App	Sequence 3, Appli	Sequence 3, Appli	Sequence 143, App	a)	Sequence 484, App	Sequence 674, App	Sequence 789, App	Sequence 687, App	Sequence 2611, Ap	w	Sequence 2611, Ap	Sequence 2611, Ap	Sequence 1, Appli		O)	Sequence 14955, A	Sequence 45, Appl	Sequence 162, App	Sequence 65, Appl	Sequence 5, Appli	o)	Sequence 161, App	59, Ap
51-274-14 72-118-91	3 US-10-170	5 US-10-22	5 US-10-021-660	6 US-1	0 US-09-971-392	Ŋ	9 US-09-104-063-3	m	9 US-09-870-759-143	10 US-09-751-708A-143	11 US-09-826-509-484	15 US-10-101-510-674	15 US-10-017-161-789	16 US-10-292-798-687	9 US-09-796-692-2611	15 US-10-040-862-2611	16 US-10-057-475B-2611	16 US-10-154-884B-2611	9 US-09-953-692-1	9 US-09-953-717-1	13 US-10-085-783A-14955	US-10-242-535A-1	4		US-10-251-385-6	9 US-09-104-063-5	3 US-10-666-	ö	
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75.0				75.0		75.0	75.0	75.0		74.7	74.3			67.5				43.9	40.1	40.1	26.9	26.9	21.9	21.7	21.7	21.7	21.7	21.7	21.7
517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	517.2	515.6	515.6	512.4	505.2	466	466	303.2	303.2	303.2	303.2	276.4	276.4	185.6	185.6	151.4	TU)	LL)	150	150	150	150
12 16	17	18	19	20	. 21	22	23	24	25	56	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

## ALIGNMENTS

```
WS-10-16-401-1

Squence 1, Application US/10160401

Squence 1, Application No. US20030207281A1

GENERAL INFORMATION:
APPLICANT: Bentivegna, Steven C.
APPLICANT: Bentivegna, Steven C.
APPLICANT: Batelecki, Karyn M.
APPLICANT: Rounds, Ellean
APPLICANT: Rounds, Ellean
TITLE REFERENCE: MWH-0121US
CURRENT APPLICATION NUMBER: US/10/160,401
CURRENT APPLICATION NUMBER: PCT/US01/12268
PRIOR APPLICATION NUMBER: PCT/US01/12268
PRIOR PLING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR FILING DATE: 2000-04-13
PRIOR SEQ ID NOS: 31
SQ ID NO:
LENGTH: S161
TYPE: DAA
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: allele
LOCATION: (3118)... (3118)
OTHER INFORMATION: PS1: Polymorphic base cytosine or thymine
FEATURE:
NAME/KEY: allele
LOCATION: (3583)... (3583)
OTHER INFORMATION: PS3: Polymorphic base cytosine or thymine
FEATURE:
NAME/KEY: allele
LOCATION: (3352)... (3952)
CTHER INFORMATION: PS3: Polymorphic base cytosine or thymine
```

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FILE REFERENCE: CNS-007

CURRENT APPLICATION NUMBER: US/09/813,651B

CURRENT FILING DATE: 2001-03-20

PRIOR APPLICATION NUMBER: US 60/190,946

PRIOR FILING DATE: 2000-03-21

PRIOR FILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR PILING DATE: 2000-03-21

PRIOR FILING DATE: 2000-03-21

SEQIENCE: PARCHING VONCS: 85

SOFTWARE: PARCHIN VERSION 3.0

SEQIENCE: PARCHIN VERSION 3.0
                                                                                                                                                                                                                                            ; LOCATION: (1)...(1059)
; OTHER INFORMATION: human CXCR4 gene
US-09-813-651B-84
                                                                                                                                                                         LENGTH: 1059
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                     FEATURE:
NAME/KEY: CDS
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                                                                                                                                              Length 5161;
                                                                                                      or thymine
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; FEATURE:
; NAME/KEY: allele
; LOCATION: (4030)...(4030)
; OTHER INFORMATION: PS4: polymorphic base cytosine; FEATURE:
; NAME/KEY: allele
; LOCATION: (4262)...(4262)
; OTHER INFORMATION: PS5: polymorphic base adenine o
                                                                                                                                            Query Match 75.1%; Score 518; DB 16; Best Local Similarity 85.7%; Pred. No. 1.4e-156; Matches 591; Conservative 2; Mismatches 82;
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    75.0%; Score 517.2; DB 13; Length 1059;
85.8%; Pred. No. 1.2e-156;
ive 0; Mismatches 83; Indels 15;
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Query Match
Best Local Similarity 85.8<sup>†</sup>
Matches 592, Conservative
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Sequence 84, Application US/09813651B
Publication No. US20030018438A1
GENERAL INFORMATION
APPLICANT: Nestor, John
APPLICANT: Tan Hehir, Christina
APPLICANT: Kates, Steven
TITLE OF INVENTION: Binding Compounds and Methods for Identifying Binding Compounds

RESULT 2 US-09-813-651B-84

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OS-10-10-401-2

DEGUALOR ON US20030207281A1

GENERAL INFORMATION:

APPLICANT: Genaissance Pharmaceuticals, Inc.

APPLICANT: Genaissance Pharmaceuticals, Inc.

APPLICANT: Bentivegna, Steven C.

APPLICANT: Bisglecki, Karyn M.

APPLICANT: Koshy, Beena

APPLICANT: Konnce, Glen

APPLICANT: Monroe, Glen

APPLICANT: MONROE: Bileen

CURRENT APPLICATION NUMBER: US/10/160,401

CURRENT APPLICATION NUMBER: US 60/197,025

PRIOR APPLICATION NUMBER: US 60/197,025
                                                                                                                                                                                                                                                                                                 TTCCACTGTTGTCTGAACCCCATCCTCTAT 906
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; ORGANISM: Homo sapiens
US-10-160-401-2
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                                                                Sequence 125, Application US/10014322A

Sequence 125, Application US/10014322A

Publication No. US20030167129A1

GENERAL INFORMATION:

APPLICANT: Wilson, Carol

APPLICANT: Wilson, Carol

APPLICANT: Atles, Steven

APPLICANT: Atles, Steven

APPLICANT: Kates, Steven

APPLICANT: Kretenansky, John

TITLE OF INVENTION: Blinding Compounds and Methods for Identifying Binding Compounds

FILE REFREENCE: CNS-008

CURRENT APPLICATION NUMBER: US/10/014,322A

CURRENT APPLICATION NUMBER: US 60/243,587

PRIOR APPLICATION NUMBER: US 09/813,651

PRIOR FILING DATE: 2001-03-20

PRIOR PLING DATE: 2001-03-20

MUMBER OF SEQ ID NOS: 126

SEQ ID NO 125

LENGTHA 1059
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 75.0%; Score 517.2; DB 15; Length Best Local Similarity 85.8%; Pred. No. 1.2e-156; Matches 592; Conservative 0; Mismatches 83; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; LOCATION: (1)..(1059)
; OTHER INFORMATION: human CXCR4 gene US-10-014-322A-125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: DNA ORGANISM: Homo sapiens FEATURE:
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Db   602 GACTTGTGGGTGGTTCCAGTTTCAGCACATCATGGTTGGCTTATCCTGCCTG	RESULT 6  US-10-105-720-1235  Sequence 1235, Application US/10305720  Sequence 1235, Application US/10305720  Sequence 1235, Application US/10305720  Publication No. US20040010136A1  GENERAL INFORMATION: TITLE OF INVENTION: Composition for the Detection of Signaling Pathway Gene Expression FILE REFERENCE: PA-0002-1 CON CURRENT RELING DATE: 108-01-30  CURRENT RELING DATE: 1998-01-30  PRIOR APPLICATION NUMBER: 09/106,434  PRIOR FILING DATE: 1998-01-30  NUMBER OF SEQ ID NOS: 1490  SOFTWARE: PERL Program  SEQ ID NO 1235  LENGTH: 1225  TYPE: DAA  ORGANISM: Homo sapiens  FEAUTRE: NAME/KRY. misc feature	OTHER INFORMATION: GenBank ID No. US20040010136A1 g189313   Ug-10-336-720-1235   Ug-10-336-720-1235   Ug-10-336-720-1235   Ug-10-336-720-1235   Ug-10-336-720-1235   Ug-10-336-720-1235   Ug-306-720-12456   Ug-306-720-72456   Ug-306-720-7245
	RESULT 5 US-10-101-510-741  Sequence 741, Application US/10101510  Publication No. US20030148295A1  GENERAL INFORMATION: APPLICANT: WAN, JACKSON TILE OF INVENTION: EXPRESSION PROFILES AND METHODS OF USE FILE REFERENCE: 15117.0012 CURRENT APPLICATION NUMBER: US/10/101,510  CURRENT RILING DATE: 2002-03-20 PRIOR FILING DATE: 2001-03-20 PRIOR FILING DATE: 2010-03-20 NUMBER OF SEQ ID NOS: 805 SOFTWARE: PatentIn Ver. 2.1  SEQ ID NO 741  LENGTH: 1225  LENGTH: 1225  CORGANISM: Homo sapiens US-10-101-510-741	Query Match

660 480 600 721 781 782 craccriacracarresearcascarceacrecricerecreseaarcarcaasea 841 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCCATCACAGAGGCCCTCGCCTTC COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS

SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/641,643

FILING DATE: 14-Aug-2003

CLASSIFICATION NUMBER: CUNKNOWN>

PRIOR APPLICATION DATA:

APPLICATION DATA:

APPLICATION NUMBER: CUNKNOWN>

FILING DATE: CINKNOWN>

FILING DATE: CINKNOWN>

ATTORNEY/AGENT INFORMATION:

REFERENCE/DOCKET NUMBER: 9A-0001 US

TELEPHONE: (650) 845-4166

INFORMATION FOR REQ. ID NO: 1213: TTCCACTGTTGTCTGAACCCCATCCTCTAT 931 661 TICCACTGTTGCCTGAACCCCATCCTCTAT 690 LIBRARY: GENBANK CLONE: 9219868 SEQUENCE DESCRIPTION: SEQ ID NO: 1213 SEQUENCE CHARACTERISTICS: LENGTH: 1664 base pairs TYPE: nucleic acid STRANDEDNESS: single US-10-641-643-1213 602 421 662 481 722 541 601 902 g 8 6 ò q ò g ઠે g ò

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75.0%; Score 517.2; DB 17; Length 1664;
85.8%; Pred. No. 1.5e-156;
ive 0; Mismatches 83; Indels 15;
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US-09-880-107-2143
US-09-880-107-2143
Sequence 2143, Application US/09880107
Sequence 2143, Application US/09880107
Sequence 2143, Application US/09880107
Setent No. US200201429BA1
APPLICANT: HOTHER, Darci T.
APPLICANT: Scherf, Uwe
APPLICANT: Scherf, Uwe
ITILE OF INVENTION: Gene Expression Profiles in Liver Cancer;
FILE REFERENCE: 44921-5028-WO
CURRENT APPLICATION NUMBER: US 60/211,379
PRIOR PILING DATE: 2000-10-02
NUMBER OF SEQ ID NOS: 3950
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 Query Match
Best Local Similarity 85.8
Matches 592; Conservative
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75.0%; Score 517.2; DB 10; Length 1670;
Best Local Similarity 85.8%; Pred. No. 1.5e-156;
Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                              , OTHER INFORMATION: Genbank Accession No. US20030134280A1 L06797
US-09-960-706-636
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PRIOR APPLICATION NUMBER: 60/223,323
PRIOR FILING DATE: 2000-08-07
PRIOR APPLICATION NUMBER: 09/873,319
PRIOR FILING DATE: 2001-06-05
NUMBER OF SEQ ID NOS: 1124
SEQ ID NO 636
LENGHRE: PATENTIN VET. 2.1
SEQ ID NO 636
LENGHR: 1670
TYPE: DNA
NYER: DNA
NYER: DNA
NYER: NA
NYER: NA
NYER: NA
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US-10-372-683-1
; Sequence 1, Application US/10372683
; Publication No. US20040009171A1
; GENERAL INFORMATION:
; APPLICANT: GERRITSEN, MARY E.
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Publication No. US20030134280A1
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Identifying Drugs for and Diagnosis of Benign Prostatic Hyperplas
TITLE OF INVENTION: Gene Expression Profiles
TITLE OF INVENTION: Gene Expression Profiles
FILE PEPERALCATION UNDERS: US/09/960,706
CURRENT APPLICATION NUMBER: US/09/960,706
CURRENT FILING DATE: 2001-09-24
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                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                           15;
                                                                                 FEATURE:
, OTHER INFORMATION: Genbank Accession No. US20020142981A1 L06797
US-09-880-107-2143
                                                                                                                                             Query Match 75.0%; Score S17.2; DB 9; Length 1670; Best Local Similarity 85.8%; Pred. No. 1.5e-156; Matches 592; Conservative 0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TICCACTGITGCCTGAACCCCAICCICIAT 690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TTCCACTGTTGTCTGAACCCCATCCTCTAT 978
     SOFTWARE: Patentin Ver. 2
SEQ ID NO 2143
LENGTH: 1670
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 9
US-09-960-706-636
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APPLICANT: PEALE JR., FRANKLIN V.
APPLICANT: WU, THOMAS D.
ITILE OF INVENTION: METHODS FOR THE TREATMENT OF CARCINOMA
FILE REPERENCE: P1928R1P1
CURRENT APPLICATION NUMBER: US,10/372,683
CURRENT PILING DATE: 2003-02-21
PRIOR APPLICATION NUMBER: US 10/271,690
PRIOR APPLICATION NUMBER: US 60/344,534
PRIOR FILING DATE: 2001-10-18
NUMBER: OF SEQ ID NOS: 49
SEQ ID NO 1
SEQ ID NOS: 49

Gaps 15; Query Match 75.0%; Score 517.2; DB 16; Length 1670; Best Local Similarity 85.8%; Pred. No. 1.5e-156; Matches 592; Conservative 0; Mismatches 83; Indels 15;

TYPE: DNA
, ORGANISM: Homo sapien
US-10-372-683-1

363 9 304 cracaccrarcasoraccascracrarrarcarcacacraccararas 1 CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGAT g

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GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC

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B89 GGGTGTGAGTTTGAGAACACTGTGCACAAAGTGGATTTCCATCACCGAGGCCCTAGCTTTC Trecacrearecereaaccecarecrear 690 949 199

RESULT 11 US-10-440-464-77 ; Sequence 77, Application US/10440464

GENERAL INCRMATION:

APPLICANT: D'FARRELL.

APPLICANT: O'FARRELL.

APPLICANT: O'FARRELL.

APPLICANT: MAINTOO, ALYSSA

APPLICANT: MAINTOO, ALYSSA

APPLICANT: WANNING, WILLIAM

APPLICANT: WANNING, WILLIAM

APPLICANT: WANNING, WILLIAM

APPLICANT: WANNING, WILLIAM

APPLICANT: WALTER, SARAH

APPLICANT: SCHILLING, JIM

TITLE OF INVENTION: NOVEL BIOWARKERS OF TYROSINE KINASE INHIBITOR EXPOSURE

TITLE OF INVENTION: AND ACTIVITY IN MANWALLS

TITLE OF INVENTION NUMBER: 60/380,872

PRIOR PELICATION NUMBER: 60/380,872

PRIOR APPLICATION NUMBER: 60/448,922

PRIOR APPLICATION NUMBER: 60/448,922

PRIOR APPLICATION NUMBER: 60/448,922

PRIOR APPLICATION NUMBER: 60/448,922

PRIOR PRIOR APPLICATION NUMBER: 60/448,924

PRIOR FILING DATE: 2003-02-24

NUMBER OF SEQ ID NOS: 185

SEQ ID NO 77

LENGTH: 1670 TYPE: DNA
CORGANISM: Homo sapiens
US-10-440-464-77

1 CTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACTCCCCTTCTGGGCCAGTTGAT Gaps 15; Query Match 75.0%; Score 517.2; DB 16; Length Best Local Similarity 85.8%; Pred. No. 1.5e-156; Matches 592; Conservative 0; Mismatches 83; Indels

423 61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 364 GCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACA 424 GTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC 304 CTGCACCTGTCAGTGGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGAT 121 GICAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCC d 엄 ద ઠે  $\dot{\delta}$ 

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301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGT g ò

420 602 ------readroaddeadardacadararchdreaddcocrrcracceaar 361 AGCCTGTGGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC 649 gactricricitetricitetricciaerinchicachicanderredectriandereder ద 유 8

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661 Trccacrerrectrgaaccccarccrar 690
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; LENGTH: 1679
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-181-906-9
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                                                                                                                                                                      Sequence 80, Application US/10211462

| Sequence 80, Application US/10211462
| Publication No. US20040033495A1
| GENERAL INFORMATION:
| APPLICANT: Michard
| APPLICANT: Michard
| APPLICANT: Glynne, Richard
| APPLICANT: Glynne, Richard
| APPLICANT: Aziz, Natasha
| APPLICANT: Aziz, Natasha
| APPLICANT: Eos Biorechnology, Inc.
| APPLICANT: Dos Biorechnology, Inc.
| TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis Modulators
| TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
| TITLE REFERENCE: 018501-006200US
| TITLE REFERENCE: 018501-00620US
| FILE REFERENCE: 018501-00620US
| FRIOR PELICATION NUMBER: US 09/791,390
| PRIOR APPLICATION NUMBER: US 09/791,390
| PRIOR APPLICATION NUMBER: US 60/310,025
| PRIOR FILING DATE: 2001-02-12
| PRIOR FILING DATE: 2001-08-03
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61 GCCATGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
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                                                                                              TTCCACTGTTGTCTGAACCCCATCCTCTAT 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: DNA
CORGANISM: Homo sapiens
US-10-211-462-80
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Sequence 9, Application US/10181906
Publication No. US20040053864A1
GENERAL INFORMATION
APPLICANT: Karsenty, Gerard
APPLICANT: Aming , Michael
APPLICANT: Aming , Michael
APPLICANT: DOUGY, Particia
APPLICANT: DOUGY, Particia
APPLICANT: DOUGY, PARTICOS
TITLE OF INVENTION: MODULATION OF NEUROPEPTIDE Y ACTIVITY
FILE REFERENCE: 9142-020-999
CURRENT APPLICATION NUMBER: 105/10/181,906
CURRENT APPLICATION NUMBER: PCT/US01/02040
PRIOR APPLICATION NUMBER: PCT/US01/02040
PRIOR APPLICATION NUMBER: PCT/US01/02040
NUMBER OF SEQ ID NOS: 16
SOFTWARE: Patentin version 3.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          181 ATTGRECAGGCACCAACAGTCAAAGGCCAAGGAACTGCTGGCTGAAAAGGCAGTCTAT
785 CAGAAGCGCAAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGG
                                                                                                                                                                                                                          845 CIGCCTTACTACATAGGATCAGCATCGACCCTTCATCCTCCTGGAAATCATCAAGCAA
                                                                                                                                                                                            541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAA
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CIGCCATATTATGIGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCATCAAGCAA 600
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'US-10-151-274-14

'Sequence 14, Application US/10151274

'Publication No. US20030064071A1

'GENERAL INFORMATION:
'APPLICANT: Litenan, Dan R.
'APPLICANT: Litenan, Dan R.
'APPLICANT: Litenan, Danglas S.
'APPLICANT: Litenan, Douglas S.
'APPLICANT: Van Kooyk, Yvette
'APPLICANT: Van WORDER: US/09/517,605
'PRIOR PELING DATE: 2002-05-20
'PRIOR PELING DATE: 2000-03-02
'PRIOR PELING DATE: 2000-03-02
'SOFTWARE: PatentIn Ver. 2.0
'SEQ ID NO: 14
'LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                         GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660
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                                                                                                     ------TCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAAT
                                                                                                                                                361 AGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGC
                                                                                                                                                                          301 AGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGGAT
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Pred. No. 1.5e-156;
0; Mismatches 83;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661 TICCACTGITGCCIGAACCCCAICCICTAI 690
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Best Local Similarity 85.8%;
Matches 592; Conservative C
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ORGANISM: Homo sapiens
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Pred. No. 1.5e-156;
0; Mismatches 83; Indels 15;
                                                                                                                                                                                                                                                                                                                                TTCCACTGTTGCCTGAACCCCATCCTCTAT 690
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Best Local Similarity 85.8%;
Matches 592; Conservative (
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181 ATTGTCCACGCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGGTGAAAAGGCAGTCTAT 240
          601 GGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTC 660 905 GGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGGAGGCCCTAGCTTTC 964
                                                                  301 AGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
                                                                                                   361 AGCCIGIGGAIGGIGGIGITTCAATICCAGCATATAATGGIGGGICTCATCCTGCCCGGC 420
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Search completed: May 17, 2004, 22:14:04 Job time : 341.746 secs BX397685 BX397685 BX353233 BMS53233 BMS54252 AGENCOURT BUG523025 AGENCOURT BUG53025 BX462627 BUG53025 BX462182 CD466324 LuchoN2\_3 BG145042 ut75a01.7 CD592035 AGENCOURT CB58266 AGENCOURT CB58266 AGENCOURT CB58266 AGENCOURT CB58266 AGENCOURT CB58266 AGENCOURT BR362477 BX362477 BX362477 BX362477 BIG5229 BX443258 BG613352 602641234 BX443258 BX443234 BIG52270 mt83501.7 BIG52270 mt83501.7 BG483197 602501047 BG277031 uv10e03.7 BG145062 ut75b11.7 CD38211.7 CD38211.7 CD38210800 AGENCOURT BG483197 602501140 BG277031 uv10e03.7 BUG562 ut75b11.7 CD382107 AGENCOURT BUG562 ut75b11.7 CD382109 GG33-58 M BM387369 UI-R-CNI-CA454255 AGENCOURT BUG19690 GG33-58 M

BX397685 BX353253 BX55259 BX462627 BX523025 BX418530 BX466324 CD466324 BG145042 BG145042 CD52065 CD52065

1201 12091 12091 12091 12001 74091 5882 952 AIIJ1863 BG443328 BG643334 BX443334 BI762229 BI762229 BI762463 BA182210 BG7483197 BG483197 BG483197 BG483197 BG483197 BG483197 CD389217 BG389217 BG389217 AA816049 AA816049 BY3889565 AA816049 BY3889565 BY3889565 BG1744156

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                               GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Maximum Match 100%
Listing first 45 summaries
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BI756157 603030061 AW389565 RCZ-ST016 CF540844 UI-M-GWO-BU146456 AGENCOURT BG17412 602334232 BP430205 BP40205 BU283174 603863101

ALIGNMENTS

CD251331 872 bp mRNA linear EST 22-MAY-2003
MITION AGENCOURT 14211919 NIH MGC 179 Homo sapiens CDNA clone
IMAGE:30384274 5', mRNĀ sequence.
SSION CD251331
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CDNA EST.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
CHCON EST.
CDNA CATC HOMO.
CONTACT Daniela S. Gerhard, Ph.D.
CORTACT: Daniela S. Michael Brownstein
CONTACTORMENT Preparation: Invitrogen Corp
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLML)
DNA Sequencing by: Agencourt Bioscience Corporation
CLONE distribution: MGC Clone distribution information can be found through the I.M.A.G.E. Consortium/LIML at:

CD251331 AGENCOURT BX421287 BX421287 BX358346 BX358346 BX421511 BX421511

CD251331 BX421287 BX358346 BX421511

872 1201 1201 1201

75.0 74.1 73.4 73.2

517.2 511.6 506.2 505.4

Description

SUMMARIES

Query Match Length DB

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Unpublished (2001)
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
EP 191 91006 EVRY cedex - France
Introducted by Life Technologies, a division of
Introduction about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/Cluster.cgi?seq=CSODG004AD05QP1&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/ InViroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODG004AD05QP1.
http://moltope="WRMA"
// db xref="taxon:9606"
// db xref="taxon:9606"
// cell line="RAMOS CELL LINE"
// cell line="RAMOS BX421287
BX421287 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA clone CSODG004YG09 5-PRIME, mRNA sequence.

BX421287
GI:30766068 into 420 393 120 453 180 513 240 573 300 631 360 9 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria, Primates; Catarrhini; Hominidae; Homo.
1. (bases 1 to 1201)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Pull-length cDNA libraries and normalization
Unpublished (2001) 334 CIGCACCIGICAGIGGCCGACCTCCTTTGICACACGCTTCCCTTCTGGGCAGTTGAT 394 GCCGFGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATACACA GICAACCICTACAGCAGCGITCICATCCIGGCCTICATCAGCCIGGACCGGIACCICGCC GIGGGCGICTGGAICCCAGCCCICCTGACTAIACCIGACTICAICTITGCCGACGIC CTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCCAGTTGAT GCCATGGCTGACTGTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT Gaps

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BX358346
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1 (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished (2001)
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Genoscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Bmail: seqref@genoscope.cns.fr Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. Contact : Peng Liang Email : fliang@lifetech.com URL
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Paraday Avenue Genoscope sequence ID : CSODIO36CE09QP1.
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/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="Ist strand cDNA was primed with a Not1-Oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR v
sites of the pCMVSPORT 6 vector. Library was normalized.
                                                                                                                                  799 CAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCCATCCTGGCTTTCTTCGCCTGTTGG
541 CTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGGAGTCATCAAGCAA
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/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="CSODI036YJ17"
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Contact: Genoscope
Genoscope - Centre National de Sequencage
Genoscope - Centre National de Sequencage
BP 191 91006 BYRY cedex - France
Email: segrefegenoscope.cns.fr. Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODG007BG06QPl&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetceh.com URL
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODG007BG06QPl.
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BX421511 GI:30651194
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                                                              484 GICAACCICTACAGCAGTGTCCTCCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCC
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/organism="Homo sapiens"

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/db_xref="lawn"
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/clone="lawn"
/clone lib="Homo sapiens B CELLS (RAMOS CELL LINE)"
/clone lib="Homo sapiens B CELLS (RAMOS CELL LINE)"
/note="Vector: pGMVSFORT 6; lst strand cDNA was primed with a NotI-cligo(dT) primer. Five prime end enriched, with a NotI-cligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and ECORV sites of the pGMVSPORT 6 vector.
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FEATURES

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalla, Eutheria, Primatee, Catarrhini, Hominidae, Homo.

1 (Dases 1 to 1201)

Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Li, W.B., Gruber, C., Jessee, J. and normalization

Unpublished (2001)

Contact: Genoscope

sapiens (human)

Homo sapiens Homo sapiens

ORGANISM

CEYWORDS

REFERENCE AUTHORS TITLE JOURNAL COMMENT

Contact: Gargoscope. Cantro National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BRMail: sequencescope.cns.fr, web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSOD1015DF10QP1&cluster=1272.r. Contact:
Feng Liang Email: filang@lifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenu Genoscope sequence ID: CSOD1015DF10QP1.

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                     Query Match 71.7%; Score 494.8; DB 13; Length 1201; Best Local Similarity 85.3%; Pred. No. 6.1e-106; Matches 580; Conservative 1; Mismatches 83; Indels 16;
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COT 25-NORMALIZED Homo sapiens CDNA

1201 bp mRNA
BX396365 Homo sapiens PLACENTA COT 25-NORN
COT 25-NORN
BX396365 G133963955 G1:30609085

RESULT 5 BX396365 LOCUS DEFINITION

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Contact: Genoscope,
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Email: seqref@qenoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO41AH07QPIscluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODIO41AH07QPI.
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BX397685 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODI041YO13 5-PRIME, mRNA sequence.
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1 (bases 1 to 1091)
1 "I, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full.length cDPA libraries and normalization
Unpublished (2001)
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/note="Ist_ernand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCRNVSPORT 6 vector. Library was normalized.
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                                                                   875 CIGCCITACIACATIGGGAICAGCALCGACTCCTTCATCCTCCTGGAATCATCAAGCAA
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EXISSES Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED Homo sapiens CDNA clone CSODC003YG03 5-PRIME, mRNA sequence.
BXSS3253
BXSS3253.1 GI:30347726 240 300 651 697 420 757 480 658 817 538 877 598 937 997 /organisma"Homo sapiens"
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National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-remail.nih.gov
Tissue Procurement: Invitrogen
cDNA Library Preparation: Life Technologies, Inc.
cDNA Library Preparation: Library Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM1270 row: e column: 12
High quality sequence start: 20
High quality sequence start: 20
High quality Sequence Stop: 753.
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        /note="lst strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR vites of the pCMVSPORT 6 vector. Library was normalized.
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                                                                                                                        71.3%; Score 491.8; DB 13; Length 1201;
larity 84.9%; Pred. No. 3.1e-105;
Conservative 2; Mismatches 85; Indels 16;
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1051 bp mRNA linear EST 20-FEB-2002 AGENCOURT\_6497171 NIH\_MGC\_124 Homo sapiens cDNA clone IMAGE:5726963 5', mRNA Sequence.

RESULT 8 BM545259 LOCUS DEFINITION

BMS45259.1 GI:18777197

ACCESSION VERSION KEYWORDS

Homo sapiens (human) Homo sapiens

ORGANISM

REFERENCE AUTHORS

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1051)
NIH-MGC http://mgc.nci.nih.gov/.

us-09-367-052-3.rst

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us-09-367-052-3.rst

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was primed with a NotI-oligo(dT) primer. Five prime end
enriched, double-strand cDNA was digested with Not I and
cloned into the Not I and EcoRV sites of the pcMVSPORT 6
vector. Library was not normalized."
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http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODF006DB08QP1.
Location/Qualifiers
1. .1201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 453.8; DB 13; Length 1201;
Pred. No. 2.9e-96;
3; Mismatches 85; Indels 20;
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Best Local Similarity 84.1%;
Matches 573; Conservative
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Homo sapiens
Homo sapiens
Homo sapiens
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1201)
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     /note="Organ: colon, Vector: pCMV-SPORT6, Site_1: Not1;
Site_2: Sal1; Cloned unidarectionally. Primer: Oligo dT.
Average insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
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                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                      4.
                                                                                                                                                                Length '906;
                                                                                                                                                             Query Match 67.8%; Score 468; DB 13; Length 9
Best Local Similarity 97.3%; Pred. No. 1.1e-99;
Matches 498; Conservative 0; Mismatches 10; Indels
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SOURCE
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BX418530
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nation. Yutaka Suzuki and Dr. Sumio Sugano in anter, University of Tokyo Institute of Medical Inversity of Georgia, sequencing done in the mitversity of Georgia, sequencing done in the mitve and Bioinformatics, University of Georgia. Deen trimmed to exclude vector and regions below three-prime sequences are presented as their and have been trimmed to exclude polyA.
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Unstimulated peripheral blood leukocytes N2
one LeukoN2_3_D11_A024 5', mRNA sequence.
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                                                                  GACGACAGCCATCCTCATCCTAGCTTTCTTTGCCTGCTGG 540
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Sun,F., Sullivan,R., Shah,M. and Pratt,L.H.
squine (Equus caballus) unstimulated
ocytes
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rissodactyla, Equidae, Equus.
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gia, Department of Plant Biology
1g, Rm. 2502, Athens, GA 30602-7271, USA
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952 bp mRNA linear EST 05-MAY-2003
CELLS (JURKAT CELL LINE) COT 10-NORMALIZED
CSODJ015YP09 5-PRIME, mRNA sequence.
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Homo sapiens
Homo sapiens
Bukaryotas, Metazoas, Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryotas, Metazoas, Chordates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 952)
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100.0%; Pred. No. 5.6e-92;
tive 0; Mismatches 0; Indels
                                                                                                                                                            /mol_type="mRNA"
/db_xref="taxon:10090"
/clone="IMAGE:3333409"
Seq primer: -40RP from Gibco
High quality sequence stop: 5
Location/Qualifiers
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Homo sapiens cDNA clone
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Best Local Similarity
Matches 435; Conserv
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Mus musculus
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sclurognathi; Muridae; Murinae; Mus
I Chases I to 5823
NCI-GAAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
                                                                                                                                                                                                                                                                                                    AGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCC 192
                                                                                                                                                                                                                                     60
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Unpublished (1997)
Contact: Robert Strausberg, Ph.D.
Email: ggapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
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                                                                                                                                                                      TGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTAC
                                                                                                                                                                                                                    193 ACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGGGGAC
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                                                                                                           Gaps
                                                                                                           15;
                                  Score 435.6; DB 14; Length 749;
Pred. No. 4.5e-92;
0; Mismatches 89; Indels 15;
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                                         Query Match
Best Local Similarity 83.2%;
Matches 514; Conservative (
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is ii, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
L Unpublished (2001)
Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Email: Sequef@genoscope.cns.fr, www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODJO15CH05QP1&cluster=1272.r. Contact:
Feng Liang Email: filang@lifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODJO15CH05QP1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61 GCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 121 GICAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCC 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241 GIGGGCGTCTGGATCCCAGCCCTCCTCAATAACCTGACTTCATCTTTGCCGACGTC 300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301 AGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCGAT 360
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                                                                                                                                                                                                                                                                                                                                                                                                                               /organism="Homo sapiens"
/moi type="mRNA"
/db_wref="taxon:966"
/db_oref="Cs0DJ015YP09"
/cell_type="T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED"
/cell_line="JURKAT"
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Best Local Similarity 84.5%; Pred. No. 4e-91;
Matches 497; Conservative 4; Mismatches 72; Indels 15; Gaps
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Search completed: May 17, 2004, 16:09:01 Job time : 1999.6 secs

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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a

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Mus musculus mRNA for murine CXCR-4, complete cds.
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KEYWORDS
Mus musculus (house mouse)
ONGANISM Mus musculus (house mouse)
ONGANISM Mus musculus (house mouse)
AMMERIATYOLA; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Mus.
REFERENCE 1 (sites)
AUTHORS Nagasawa, T., Nakajima, T., Tachibana, K., Iizasa, H., Bleul, C.C.,
Yoshie, O., Matsushima, K., Yoshida, N., Springer, T.A. and
Kishimoto, T.

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Molecular cloning and characterization of a murine pre-B-cell growth-stimulating factor/etromal cell-derived factor I receptor, murine homolog of the human immunodeficiency virus 1 entry coreceptor fusin Proc. Natl. Acad. Sci. U.S.A. 93 (25), 14726-14729 (1996) 9712.456
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Direct Submission
Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Os
Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Os
Medical Center, Department of Immunology; Murodocho 840, Izumi,
Osaka 590-02, Japan (E-mail:immunol@osk.threewebnet.or.jp,
Tel:0725-56-1220, Fax:0725-57-3021)
Location/Qualifiers
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gene="murine CXCR-4"
function="PBSF/SDF-1 receptor"
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llarity 100.0%; Pred. No. 0;
Conservative 0; Mismatches
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Nagasawa, T.T.
Molecular cloning of mu
Unpublished
3 (bases 1 to 1877)
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hesda, MD 20892-2590 , Inc. sortium (LLNL) ne Human Genome	Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Louleeged, H., Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati, A.N., Gibbs, R.A.  A.N., Gibbs, R.A.  Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 61 Row: d Column: 24  This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein.  Location/Qualifiers	/or /db//dd//dd//dd//dd//dd//dd//dd//dd//dd	1.1817   gene="Cxor4"   note="synonyms: LESTE, fusin, PB-CKR, PBSF/SDF-1, CD184"   db_xref="Locus1D:12767"   db_xref="MGI:109563"   781157   codon_start=1   /product="themowine (C-X-C motif) receptor 4"   /profein_id="AAH31665.1"   db_xref="GI:21618782"	feature	atch cal Similarity 99.9%; Score 1797.4; DB 10; Length 1817; 1809; Conservative 0; Mismatches 1; Indels 1; Gaps 1;  50 GCAGGTAGCAGTAGGGGGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109  8 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 67  110 GAGTGTTGCCATGGAACCATGAGGGGTTTGGTGATAACTACTTGAAACACACGGTTGAAGA 169  68 GAGTGTTGCCATGGAACCGATCAGTGAGAATAACACTTCTGATAACTACTTGAAGA 127  170 AGTGGGGTCTGGAACCGATCAGTGAGAATAATACACTTCTGATAACTACTTGAAGA 127  170 AGTGGGGTCTGGAACCCATCGAGAACCGATCAGAAACACTTCTGAAGA 127  170 AGTGGGGTCTGGAACCCAACAACAGAAGAACCCTCTCGATAACTTCTGAAGA 127  170 AGTGGGGGTCTGGAACTTGGACTCCAACAACAGAACCCTCTCGAAAAACTACTCTGAAGA 127  171 AGTGGGGTCTGGAACTTGGACTCCAACAAGAGAACCCTCTCGAGAAAACTACTCTGAAGA 127  170 AGTGGGGTCTGGAACTTGGACTCCAACAAGAGAACCCTCTCGAGAAAACTACTCTGAAGA 127  170 AGTGGGGGTCTGGAACTTGGACTCCAACAAGAGAACCCTCTCGAGAAAAACTCTGAAGAAACTACTCTGAAGA 127  171 AGTGGGGGTCTGGAACTTGGACTCCAACAAGAAAACTCTCTGAAGAAACTCTGAAGAAACTCTGAAGAAACTACTCTGAAGAAACTCTGAAGAAACTACTCTGAAGAAACTACTTGAAGAAAACTACTTGAAGAAACTACTTGAAGAAAACTACTTGAAGAAACTACTTGAAGAAAACTACTTGAAGAAACTACTTGAAGAAACTACTTGAAGAAAAACTACTTGAAGAAACTACTTGAAGAAAACTACTTGAAGAAAACTACTTGAAGAAAAACTACTTGAAGAAACTACTTGAAGAAAACTACTTGAAGAAAAAAAA
REMARK COMMENT	PEATURES		gene	misc_ ORIGIN	Ouery Match Best Local Sim Matches 1809; Oy 50 GC Db 8 GC Oy 110 GA Ob 68 GA Oy 170 AG
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ACCIGITATICTOTGTGABGACTGTAGAACTGTAGAGAACTGAACATTCCAGAA TGTGTGGTAAATTGAATAAAGCTAGCGGATCCTCAGCAGCAACATTCCAGAA TGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCA TGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCA TTCCGAGGAGCACCCCCACCCCCACCCCCACCCCCATCTTAAATTGTTTGGTTAT TTCCGAGGAGCACCCCCACCCCCACCCCCACCCCCATCTTAAATTGTTTGGTTAT TTCCGAGGAGCACCCCCACCCCCACCCCCACCCCCATCTTAAATTGTTTGGTTAT GCTGTGTGATGATTGTTTTTTTTTT	1621 GCTGTGTGATGGTTTGTTTTTTTTTTTTTTTTTTTTTTT	801 TATTACATTCTTAATAAAGTCAATGATAAACTTAAAAAAAA	IION Mus musculus chemokine (G-X-C motif) receptor 4, mRNA (cDNA clone MGC:36266 IMAGE:3592479), complete cds.  MGC:36265.1 GI:21618781  S MGC:  Mus musculus (house mouse)  IISM Mus musculus  Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,  Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.  NCE 1 (bases 1 to 1817)	<pre>Strausberg, R.L., Feingold, E.A., Grouse, L.H., Derge, J.G., Klausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D., Altschul, S.F., Zeeberg, B., Buecow, K.H., Schaefer, C.F., Bhat, N.K., Hopkins, R.F., Jordan, H., Moore, T., Max, S. I., Wang, J., Haieh, F., Diatchenko, L., Marueina, K., Farmer, A.A., Rubin, G.M., Hong, L., Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L., Schetz, T.E., Brownstein, M.J., Usdin, F.B., Toshiyuki, S. Carnindi, P., Prange, C., Raha, S.S., Loquellano, N.A., Peters, G.J., Abramson, R.D., Wullahy, S.G., Bosak, S.A., McEwan, P.J., McKernan, K.J., Malek, J.A., Gunaratne, P.H., Richards, S.W., Villalon, D.K., Muzny, D.M., Sodergren, E.J., Lu, X., Gibbs, R.A., Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.</pre>	Sanchaz, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y., Bouffard, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D., Dickson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M., Butterfield, Y.S., Krzywinski, M.I., Skalska, U., Smallus, D.E., Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A. E Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences NAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002) INE 22388257 MED 12477932 MCD 2 (Dases I to 1817) Strausberg, R. E Strausberg, R. E Direct Submission Submitted (06-JUN-2002) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer

ACCESSION VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS

RESULT 2 BC031665 LOCUS DEFINITION

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JOURNAL MEDLINE PUBMED REFERENCE AUTHORS TITLE JOURNAL

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128 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 187	
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1190 CTCCAGCTAACCCTTATGCAAAGACTTATATATATATATA	
1250 TITTATGITACACATTITCCAGATATAAGAGACTGACCAGICTTGIACACTTTTTTTTT 1309	

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·	AB000803 1809 bp mRNA linear ROD 05-FEB-1999	Mouse mRNA for murine CXCR-4, complete cds.	AB000803	AB000803.1 GI:1816445	murine CXCR-4; fusin.	Mus musculus (house mouse)	Mus musculus	Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	1 (bases 1 to 1809)	Suzuki, G., Nakata, Y., Uzawa, A., Shirasawa, T., Saito, T. and Mita, K.	Molecular cloning of murine CXCR-4, a murine homologue of HIV entry	co- receptor, that is expressed on leukocyte and other organs	Unpublished	2 (bases 1 to 1809)	Suzuki, G.	Direct Submission	Submitted (29-JAN-1997) Gen Suzuki, National Institute of	Radiological Sciences, Division of Radiation Health; 4-9-1,	Anagawa, Inage-ku, Chiba, Chiba 263, Japan	(E-mail:gsuzuki@unmx1.nirs.go.jp, Tel:043-251-2111,	Fax:043-284-1736)	Location/Qualifiers		/organism="Mus musculus"	/mol type="mRNA"	/strain="C57BL-6"	/db_xref="taxon:10090"	/tissue_type="thymus"
RESULT 3 ABOOO803	LOCUS	DEFINITION	ACCESSION	VERSION	KEYWORDS	SOURCE	ORGANISM			REFERENCE	AUTHORS	TITLE		JOURNAL	REFERENCE	AUTHORS	TITLE	JOURNAL			-		FEATURES	source					

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COMMENT

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417: contig of 1572 bp in length 517: gap of unknown length in 1010: gap of unknown length in 1010: gap of unknown length 1010: gap of unknown length 8888: gap of unknown length 8892: contig of 1778 bp in length 8992: gap of unknown length 1070: gap of unknown length 10770: gap of unknown length 10588: contig of 3151 bp in length 10588: contig of 4312 bp in length 10588: contig of 4312 bp in length 10588: contig of 4312 bp in length 10588: contig of 3805 bp in length 11273: gap of unknown length 11273: gap of unknown length 11628: contig of 3805 bp in length 11628: contig of 4526 bp in length 11632: contig of 4526 bp in length 11648: gap of unknown length 11648: gap of unknown length 11652: contig of 4525 bp in length 11871: gap of unknown length 11876: contig of 4527 bp in length 11558: gap of unknown length 11508: gap of unknown length 115744: gap 
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Location/Qualifiers
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72273. .73614
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                                                   AC145861 175370 bp DNA linear HTG 01-AUG-2003 Pan troglodytes chromosome UNK clone RP43-21D9, *** SEQUENCING IN PROGRESS ***, 39 unordered pieces.
                                                                                                                                                                                                                                                                                                    Eukaryoza, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Butheria, Primates, Catarrhini, Hominidae, Pan.
1 (bases 1 to 175370)
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Wilson,R.X.
Direct Submission
Submission
Submitted (01-MUG-2003) Genetics, Genome Sequencing Center, 4444
Forest Park Parkway, St. Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NOTE: This is a 'working draft' sequence. It currently consists of 39 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1735: contig of 5345 bp in length 5445: gap of unknown length 17395: gap of unknown length 17295: gap of unknown length 33250: contig of 11595 bp in length 33250: contig of 15955 bp in length 45446: gap of unknown length 61992: gap of unknown length 62092: gap of unknown length 62092: gap of unknown length 63233: contig of 1634 bp in length 63233: contig of 1634 bp in length 6466: contig of 1331 bp in length 6456: contig of 1331 bp in length 6456: gap of unknown length 64594: gap of unknown length 65994: gap of unknown length 6730: gap of unknown length 6982: contig of 1452 bp in length 6982: gap of unknown length 72172: contig of 1452 bp in length 72172: contig of 1481 bp in length 72172: contig of 1819 bp in length 73744: gap of unknown length 73144: gap of unknown length 73145: gap of unknown length 73145: gap of unknown length 75185: contig of 1871 bp in length 75282: gap of unknown length 75185: contig of 1871 bp in length 75282: gap of unknown length 75185: contig of 1871 bp in length 75185: contig of 1871 bp in length 75282: gap of unknown le
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of 1681 bp in length
unknown length
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Unpublished
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AC145861.1 GI:33386791
HTG, HTGS_PHASE1.
Pan troglodytes (chimpanzee)
Pan troglodytes
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTG
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85.4%; Score 1602.6; DB 2; Length 185215;
Best Local Similarity 97.2%; Pred. No. 0;
Matches 1678; Conservative 0; Mismatches 34; Indels 15; G
NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                    f unknown length
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g of 5519 bp in length
f unknown length
g of 15131 bp in length
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egap of unknown length
contig of 1418 bp in length
egap of unknown length
contig of 2322 bp in length
egap of unknown length
entry of 5322 bp in length
egap of unknown length
entry of 5511 bp in length
entry of 5513 bp in length
entry of 6539 bp in length
entry of 15131 bp in length
entry of 2392 bp in length
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entry of 2392 bp in length
entry of 25738 bp in length
entry of entry own length
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note="assembly_name:Contig129"
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note="aggembly_name:Contig51"
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/organism="Mus musculus"
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                                                                                                                                                                                                                                                                         1669
                                                                                                                                                                                                                                                                                                                                                         TTTTCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGT 1729
                      TICTIAGIAGCIGITIAICIGIGIGIGIGIAGGACIGIAGAACIGIAGAGAAGAAGAACAGAACA 1492
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Direct Submission
Submitted (17-DEC-2003) Genome Sequencing Center, 4444 Forest Park
Parkway, St. Louis, MO 63108, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (bases 1 to 185215)
                                                                                                       TTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAA
                                                                                                                                                                                                                     169398 TCTCTTCATTCCGAGGAGCACCCCCACCCCCACCCCCACCCCACCCCATCTTAAATTGT
                                                                                                                                                                                                                                                                           TTTTTTTGTTTGTTTTTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAAT
                                                                                                                                                                                        TCTCTTCATTCCGAGGAGCACCCCACCCCCACCCCCACCCCCACCCCATCTTAAATTGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequencing vector: M13,08
Sequencing vector: plasmid; 1008
Chemistry: Dye-primer ET; 08 of reads
Chemistry: Dye-primer ET; 08 of reads
Chemistry: Dye-terminator Big Dye, 1008 of reads
Assembly program: Phrap; version 0.990319
Consensus quality: 196481 bases at least Q40
Consensus quality: 196848 bases at least Q30
Consensus quality: 198294 bases at least Q20
Insert size: 182000; agarose-fp
Insert size: 252319; sum-of-contigs
Quality coverage: 13.47 in Q20 bases; sum-of-contigs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Center: Washington University Genome Sequencing Center
Center code: WUGSC
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HTG; HTGS FHASBI; HTGS_FULLTOP-
NUS MUSCULUS (house mouse)
Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The sequence of Mus musculus clone Unpublished
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241 TCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG 3101 TGATCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGG 3100 3101 TGATCCTGGCCCACCATCTACTTCATCATCTTCTTGACTGGCATGGCATGGATTGG 31400 3101 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGAGGCAAGTACGGCTGC 360 31481 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGAGGCAATGGCAAGTACCGGCTGC 360 31541 ACCTGTCAGTGGCTGACCTCCTTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCA 420 31501 ACCTGTCAGTGGCTGACCTCCTTTTGTCATCACTCCCCTTCTGGGCAGTTGATGCCA 420 31601 TGGCTGACTGGCTGACCTTCTTTGTCATCACCTCCCCTTCTGGGCAGTTGATGCCA 420 31601 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACTGTCA 480 31601 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACTGTCA 31600 421 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACTGTCA 3100 31601 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCACTGTCA 3100 31721 TCCACGCCACCACACAGTCCAGGCCTACAGGCTGGACGGTACCTGCATATGTGG 600 31721 TCCACGCCACCACACAGTCCAGAGGCCTACAGCCTGGACGGTACCTTATGTGG 610 31721 TCCACGCCACCACACACACACACACACACACACACACACA	TCATCCTCCTCTGTTACTGCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGG   91961   TCATCCTCTCTGTTACTGCATCATCTCTAAGCTGTCCACCTCCAAGGGCCACCAGG   92020   92021   TCATCCTCTCTAAGACGATCATCTCTAAGACGATCACCTGTGGTGG   92021   92021   AGCGCAAGGGCCTCAAGAGCACACTCATCCTCATCCTTTTGCTGCTGGTGGC   92080   92021   AGCGCAAGGCCTCAAGACGATCATCCTCATCCTTTTGCGTGCTGGTGGCTGC   92080   92031   MACGCAAGGCCTCAAGACGATCATCCTCATCCTTTTTGCGGATCAAGAGAT   92040   92081   CATATTATGTGGGGATCAGCACGATCATCCTTCATCCTTTTTGGGGATCAAGAGAT   92140   92081   CATATTATGTGGGGATCAGCACACACTCCATCCATCCATC
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X99581.1 GT:1924959
Heatr gene; leukocyte-derived se
Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chordata; Cr
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/db_xref="GI:1666649"
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TIYFIIELTTPDFIFADVSGGDISGGDDRYTCDRLYPDSLMWVVPGQGHINGHVYV
GVWIFALLLITPDFIFADVSGGDISGGDRYTCDRLYPDSLMWVVPGQGHINGGLAVY
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ILSKGRKGGHSSVSTESESSSFHSS"
/gene="lest"
/gene="lest"
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Pred. No. 5.1e-296;
0; Mismatches 12; Indels 13;
                                                    transmembrane
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                 /gene="lestr"
/codon_start=1
/product="leukocyte-derived
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                                  Moepps, B.
Direct Submission
Submitted (19-JUL-1996) B. Moepps, Universitaet Ulm,
Submitted (19-JUL-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm,
Revised by [3]
3 (bases 1 to 3770)
                                                                                                                                                                                                    Submitted (02-APR-1997) B. Moepps, Universitaet Ulm, Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm, On Apr 3, 1997 this sequence version replaced gi:1666646.
Location/Qualifiers
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Pred. No. 3.2e-277;
0; Mismatches 24; Indels 13;
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111. .2305
/gene="lestr"
                                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:10090"
/haplotype="diploid"
/tissue_type="thymus"
/dev_stage="6-8 weeks old"
<1. .110
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product="leukocyte-derived
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/gene="lestr"
join(90. .110,2306. .3364)
/gene="lestr"

    .3770
    /organism="Mus musculus"
/mol_type="genomic DNA"
/strain="B6"

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/number=2
3693. .3698
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/gene="lestr"
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Best Local Similarity 97.5%;
Matches 1442; Conservative
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Direct Submission
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Submitted (15-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Daylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shockgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contigs-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence conly contigs will be indicated in the feature
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       20640 ceréncecrentrerentriscagararacacricecaraacracreceaagaagaadragedee
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Pred. No. 2.9e-212;
0; Mismatches 156; Indels 122; Gaps
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40068 40167; gap of unknown length
40168 114660; contig of 7493 bp in length
114661 114760; gap of unknown length
114761 188186; contig of 73426 bp in length
188187 190149; contig of unknown length
188287 190149; contig of 1863 bp in length.
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Center code: BCM
Center code: BCM
Contact: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc-help@bcm.tmc.edu
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/mol_type="genomic DNA"
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Best Local Similarity 64.18
Matches 1465; Conservative
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Anyalebechi,V., Davogi,A., Abodeji,M., Baca,E., Baden,H.,
Baldain,D., Bandaranake,D., Barber M., Barnstead,M., Benahmed,F.,
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Clevelland,C., Cockell,R., Chen,G., Chen,Y., Chen,Z., Chen,J.,
Clevelland,C., Davis,C., Dunn,A., Durbin,K., Duval,B., Baves,K.,
Bagan,A., Bacotto,M., Bages,C., Evans,C.A., Raller, B., Garer,P.,
Fernandez,S., Filley,M., Flagga,N., Hand,B., Garer,M., Gabries,R., Haden,S., Haden,S., Hand,B., J., Handles, M., Hamilton,K., Haniton,K., Halley,M., Hadland,W., Handle,B., Haden,B., Hadens,B., Had
                                                               AC122097 190149 bp DNA linear HTG 15-NOV-2002 Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
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                                                                                                                                                                                                                                                                                                                        Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae,
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HTG; HTGS_PHASE1; HTGS_DRAFT; HTGS_FULLTOP.
Rattus norvegicus (Norway rat)
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MMLCR13

Mus musculus lcr-1 gene, exon 2.

Nu 280113.1

Z80113.1 GI:1655638

CXC chemokine receptor 4; CXCR-4; lcr-1 gene.

Mus musculus (house mouse)

Mus musculus (house mouse)

Mus musculus (house mouse)

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Giurognathi; Muridae; Mus.

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mus musculus (house it to 1422)

Schubel, A., Burgstahler, R. and Lipp, M.

The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN):

High expression in thymus and lymphoid tissues

L. Unpublished

E. (bases 1 to 1422) ROD 31-0CT-1996 FEATURES SOUTCE intron exon

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21825 IGACTGITGGAGTITATGITTTCTCTGATTTTTGTGTGTGTGTGTGTGTGTGTGTGTGAGGTTTGAC 21884

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RESULT 11 MMLCR12 LOCUS DEFINITION ACCESSION VERSION KEYWORDS	MWLCR12 Musculus lcr-1 gene. 280112 Z80112. ZR0112.1 GI:2632100 CXC obserokine receptor 4; CXCR-4; lcr-1 gene. Mus misculus (house mouse)
ORGANISM ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE	Nus misculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1180) Schubel, A., Burgstahlar, R. and Lipp, M. The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN): High expression in thymus and lymphoid tissues Unpublished (Dapalsished Chases 1 to 1180)
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exon	/translation="MEPISIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTI  YPTIFTCYCUMOGLYILVMGYQKCLRSNPDKYRLHISVADLLFYTTLPFYTTLPFYDDN YPGKFLCKGYHIYTYNLYSSVLILAFISLDRYLAIVHATNSGRPRKLLAEKAYDAMDW YPGKFLCKGYHIYTYNLYSSVLILAFISLDRYLAIVHATNSGRPRKLLAEKAYVGV WIPALLLTIPDPFTRADVGGDBYYTCDRIYPDSLMMYVFQFQHIMYGLILPGI VILSCYCIIISKLSHSKGHQKRKALKTTYILILAFFACWLPYYVGISIDSFILLGYIK QGDDFRSTYHKWISITRALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKIL SKGKRGGHSSVSTESESSSFHSS"  4115
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                                                                                                                                                                                                                                                                                                                   Direct Submission

AL Submitted (16-JAN-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

3 (bases 1 to 240931)

33 Rat Genome Sequencing Consortium.

Direct Submission

AL Direct Submission

AL Submitted (13-MAY-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 13, 2003 this sequence version replaced gi:23115278

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas (http://www.hgsc.bcm.tmc.edu/projects/rat/). Each contig described in the fature table below represents a caffeld in the Atlas assembly (a 'contig-scaffold'). Within each contig are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence may extend beyond the ends of the clone and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads.
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* NoTE: This is a 'working draft' sequence. It currently

* NOTE: This is a 'working draft' sequence. It currently

* Consists of I contigs. Gaps between the contigs

* are represented as runs of N. The order of the pieces

* is believed to be correct as given, however the sizes

* of the gaps between them are based on estimates that have

* provided by the submittor.

* This sequence will be replaced

* by the finished sequence as soon as it is available and

* the accession number will be preserved.

* Location/Qualifiers
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Center clone name: Atlas 3.0;
Consensus quality: 216793 bases at least Q40
Consensus quality: 219234 bases at least Q30
Consensus quality: 212244 bases at least Q30
Consensus quality: 212244 bases at least Q30
Consensus quality: 21224 bases at least Q30
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Williams, G., Willson, R., Wleczyk, R., Wooden, H., Worley, K., Wright, D., Wright, R., Wu, J., Yakub, S., Yen, J., Yoon, L., Yoon, V., Yu, F., Zhang, J., Zhou, J., Zhou, X., Zhao, S., Dunn, D., von Niederhausern, A., Weiss, R., Smith, D.R., Holt, R.A., Smith, H.O., Direct Submission
Uppublished
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Center: Daylor College of Medicine
Center code: BCM
Web site: http://www.hgsc.bcm.tmc.edu/
Contact: hgsc.help@bcm.tmc.edu
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/organism="Rattus norvegicus"
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/note="wgs end_extension
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Worley, K.C.
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complement(232579. .233220)
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235468. .237558
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clone_end:T7"
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### MEDLINE 9711334  PUDNED 9711334  REFERENCE 2 (bases 1 to 3366)  REFERENCE 2 (bases 1 to 3366)  AUTHORS Heesen, M., Berman, M.A., Gerard, C. and Dorf, M.E.  AUTHORS Heesen, M., Berman, M.A., Gerard, C. and Dorf, M.E.  TITLE Direct Submirssion  JOURNAL Submirted (30-UL-1996) Pathology, Harvard Medical School, 200  Longwood Avenue, Boscon, MA 02115, USA  Location/Qualifiers  1. 3366  / Organism="Mus musculus"  / Abritain="C57516/6"  / Abritain="C57516/6"  / Abritain="C57516/6"  / Abritain="C57516/6"  / Good Start=1 (5000)  / Join(121,2308)  / Join(121,2308)  / Join(121,2308)  / Join(221,2308)  / Join(321,2308)  / Join(321,2308)  / Abritain="MEDISVSIYTSDNYSEEVGSGDXDSNKEPCFRDENVHFNRIFLP Translation="MEDISVSIYTSDNYSEEVGSGDXDSNKEPCFRDENVHFNRIFLP TRANSLAGE TRANS	xon xon ntron xon	Owigin  Query Match  Query Match  Best Local Similarity  88.6%; Pred. No. 1.1e-208;  Matches 1064; Conservative  0; Mismatches  121 TGGAACCGATCAGTGAATAAAAAAAAAAAAAAAAAAAAA	
OY 1040 CCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCAT 1099  Db 236733 CCTCTAGGCTTCCTCGGGGCCAAATTCAAGAGCTCCGCGCGCACCTCATTCCAT 236674  OY 1100 GAGCAGAGGCTCCAGCTCAAATTCAAGAGAACGCGCGCGC	1433 TTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAAAACTGTAGAGGAAAAACTGAACA 236313 TTCTTAGTTGTGTGTTATGTGTAGAGACTGTAGAGGAACTGTAGAGGAACTGAACG 1493 TTCTTAGTTGTGTTGTGTTGTGTAAAAACTGTAGAGCTGTAGAGCTGTAGAGGAACTGAAA 236253 TTCCAGAATGTGTGTAAATTGAATAAAGCTAGAACTCTAGATGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGT	Oy 1673 TGGGAAGAGGGCACTTAAAACCAAAGCCGAAATGGGGGGTTT 1732  Db 236138 TCTGTAAAGATGGCACTTAAAACCAAAGCCTGAAATGGT-ATAGAAATGCTGGGGTTT 1732  Cy 1733 TTTGTTTGTTTTTTTCAAGGCTGGAATGGT-ATAGAAATGCTGG 236086  Cy 1733 TTTGTTTGTTTTTTTTCAAGGCTGGATTGATTCAGGTCCTACAAATGTA 1792'  Db 236085GTTTTTTCTTTCAAGGGTGGATTGATTTCAGTACCTACAAATGTA 236034  Cy 1793 CAGTCTTGTATTACATTGATAAAAAGTCAATGATAAAACTT 1834  Db 236033 CAGTCTTGTATTACTTGTTAATAAAAGTCAATGGTAAACTT 235992	MANUGESSO  LOCUS  LOCUS  MANUGESSO  MANUGESS

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Gaps

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SM Unknown.
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CE I (bases I to 1737)
JRS Lee, J. and Wood, W.I.
E Antibodies to human PF4A receptor and compositions thereof
E Antibodies to human A 3 07-JUL-1998;
Location/Qualifiers
Location/Qualifiers
                                                                                                         GCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCC
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۸۵	1190 CICCAGCTBACCCTTAIGCAAAGACTTATATAATATATATATATATATATATAAAGAACTT 1249	ò
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ογ	1250 TITTARGITACACATTITCCAGATATAAGAGACTGACCAGCTCTTGTACAGTTTTTTTT	6
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٥٨	1310 TITITAAITGACTITGGGAGTITAIGTTCCTCTAGTITTGTGAGGTTTGACTTAATTT 1369	ò
qa	1252 TIGTIGGATITITIGTCTIGTGTTTCTTTAGTTTTTTGTGAAGTTTTAGTTTAGTT	qu
à	1370 ATATAAATATIGTTTTTTGTTTCATGTGAATGAGCGTCTAGGCAGCAGCACCTGTGGCC 1429	6
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Qy	1430 AAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGAACTGA 1489	δò
qq	1362 AAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAACTGA 1413	අුග
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qq	1414 ACATTCCAGAGCGTGTAGTGAATCACGTAAAAGCTAGAAATGATCCCCCAGCTGTTTATGCA 1473	qu
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ζ	1670 TITICIGTAAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTGGTAGAATGCTGGGGT 1729	δλ
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PAT 29-SEP-1999 Unknown.

Unclassified.

E 1 (bases 1 to 1737)

S Thutharapai, A., Lee, J., Hebert, C. and Kim, K. Jin.

Antibodies to a human PF4 superfamily receptor

AL Patent: US 5840856-A 3 24-NOV-1998;

Location/Qualifiers

1. 1737

/organism="unknown"
/mol\_type="unassigned DNA" DNA AR060748 1737 bp. 25quence 3 from patent US 5840856. AR060748 AR060748.1 GI:5987198 . Unknown. LOCUS
DEFINITION
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KEYWORDS
SOURCE
ORGANISM REFERENCE AUTHORS TITLE JOURNAL FEATURES

ORIGIN

1009 010 CGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAA 1069
960 AGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTGGAGCCAAATTAA 1019 839 949 10; 589 649 709 659 769 719 829 779 889 109 169 134 229 194 289 254 349 314 409 374 469 434 52.9 494 554 614 4 720 GCCTGGTATTGTCATCCTGTCCTATTGCATTATCATCTCCCAAGCTGTCACACTCCAA crecreecrecontarrangreesearcaccarceaccrecritcarccittraccaagrear 650 CGACGTCAGCCAGGGGACATCAGTCAGGGGGATGACAGGTACATCTGTGACCGCCTTTA GGGCCACCAGAAGGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTGC 780 GGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGC 135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA 230 TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG 290 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGACGGACAA 470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 590 AGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGC 710 CCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGTCTCATCCT 660 ccccaargachrenegenegriehrenerinteagrinteageacareargenegennareer GCCCGGCATCGTCTTCCTGTTACTGCATCATCTCTTCTAAGCTGTCACACTCCAA CAAGCAAGGATGTGACTTCGAGGATTGTGCACAAGTGGATCTCCATCACAGAGGCCCT caagcaagggrgrgrgrgragaagacacrgrgcacaagrggarrrccarcacgaggcccr ececeecechaaereaceceaadaecereaerecreaeraeraecaecaecarereaadaae AGIGGGGICTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 195 TITCAATAAAATCTICCTGCCCACCACCACTACTCCATCATTCTTAACTGGCATTGTGGG 410 AGTTGATGCCATGGCTGACTGGTACTTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 110 GAGTGTTGCCATGGAACCGATCAGTGTGTATATACACTTCTGATAACTACTCTGAAGA Gaps / Match 51.9%; Score 974.4; DB 6; Length 1737; Local Similarity 76.1%; Pred. No. 5.7e-192; nes 1391; Conservative 0; Mismatches 301; Indels 136; 990 615 1010 770 830 840 950 900 170 20

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1730 TITITIGITIGITITICAGITITICAAQAGIAQAITGACTICAGICCCIACAAT 1789
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

genesegn20048:

101

Aaq25506 New Plate
Aad12801 Human neu
Aai65467 WA encotid
Abs35392 DNA encotid
Abv78039 Hypoxia-r
Abx74454 Human CNC
Abz26886 Nucleotid
Abz6886 Human GNC
Abz25348 Human GNC
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Abs83755 Human CNC
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Abs83803 Human CNC
Abs83803 Human CNC Aav46370 Nucleic a Aaz27611 Mouse CXC Aag80521 Human mon Chemokine Description Aaz27611 | Aag80521 | Aag99007 SUMMARIES ABZ35348 ADB47320 AAA61656 AAZ40014 ABS53750 AAQ29506 AAD12801 AAI65467 ABS53992 ABV78039 ABX08779 ABX74454 ABZ68886 AAV46370 ADC98645 ABZ42642 4AQ80521 DB Length 1679 Query Match 1 1875.4 1758 974.4 Result No. 

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## ALIGNMENTS

Mouse, CXC chemokine receptor, pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS; ds. Nucleic acid encoding a murine CXC chemokine receptor. AAV46370 standard; cDNA to mRNA; 1877 BP 20-NOV-1998 (first entry) AAV46370; RESULT 1 AAV4637 

Location/Qualifiers 120. .1199 /\*tag= a

Mus sp

WO9835035-A1 13-AUG-1998

97WO-JP000299 97WO-JP000299 07-FEB-1997; 07-FEB-1997;

(SHIO ) SHIONOGI & CO LTD

Tachibana K, Iizasa H, Yoshida N; Nagasawa T, Yoshie O; WPI; 1998-447232/38. P-PSDB; AAW64778 Kishimoto T, Nakajima T,

Mouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors.

Claim 3; Page 39-42; 76pp; Japanese.

The present sequence encodes a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the

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                                      solid cancer; therapy,
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                                                                                                                                                                                                                                                                                                                                                                                   CXCR4-potentiating agents and methods useful for inhibiting necvascularization, and treating solid cancers.
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                                  ovascularisation; inhibitor; agent; vascularisation; ss.
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ive 0; Mismatches
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                                       mouse; neovascularisation; repairing agent; vascularis
                                                                                                                                                                                                                     98JP-00095448
        coding sequence
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(KISH/) KISHIMOTO T.
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Score 974.4; DB 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Treatment of inflammatory disorders - by administering an antibody capable of binding a platelet factor 4 superfamily receptor polypeptide
                                                                                                             TGTTTGTTTTTTCAGTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTT
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                                                                        AAQ99007 standard; cDNA; 1737
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RESULT 4 AAQ99007

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Antibodies directed against the interleukin-8 receptor B can be used to treat or prevent inflammation e.g. psoriasis, dermatitis, rheumatoid interleukin-8 and particularly inflammatory bowel disease and chronic lung inflammation. When immobilised, these antibodies may be used to detect interleukin-8 receptor B expression in cells and tissues and for affinity purification of interleukin-8 receptor B from cells. This sequence is an additional chemokine superfamily receptor which was identified by probing lamda libraries of genomic DNA from a human monocyte-like cell line (L-60) and human peripheral blood lymphocytes using a large fragment of the interleukin-8 type A receptor DNA (see AAQ99006). (Updated on 25-MAR-2003 to correct PF field.)
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Pred. No. 2.9e-178;
0; Mismatches 301; Indels 136;
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The IL-8 receptor cDNA sequence was isolated (see AAQ29505) and a 874bp sub-fragment of the coding sequence was used as a probe to screen human new 11 line HL60 and human peripheral blood lymphocyte cDNA libraries. Two new gene sequences were found that are clearly related to the IL-8 receptor. One of these was contained in combined clone 8rr 20.15 and is predicted to encode an amino acid sequence which is 34% identical with both the high and low affinity IL-8 receptors. See also AAQ37107.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Isolated human platelet factor 4 super-family receptor polypeptide and corresp. antibodies and DNA - useful as diagnostic and screening agents, and for treating inflammation or PF4AR-mediated disorders.
                                          1730 TTTTTTTGTTTGTTTTTTTTTTTTTTTTTTGAGGTAGATTGACTTCAGTCCCTACAAAT
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1737 BP; 457 A; 412 C; 370 G; 498 T; 0 U; 0 Other;  51.7%; Score 969.6; DB 2; Length 1737;  imilarity 75.9%; Pred. No. 2.4e-177;  Conservative 0; Mismatches 304; Indels 136; Gaps  GCAGGTAGCAGTAGCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTTAGAGGC	20 GCGCGGCGCAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC 79  110 GAGTGTTGCCATGGAACCGATCAGTGAGTGTATATACACTTCTGATAACTACTCTGAAGA 169	AGTCGG       TGTGGG	255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACATGACATGACATGACATGACATGACATGACATGACATGACATGACAACAACTGTCCCTTTAGTCATCACTGTCACTGTCACTGACCTGTCACTGTCACTGTCACTGTCACTGTCACTGTCACTGTCACTGTCACTGTCACTGTCATCACGCTGTCCCTTTTGTCATCACGCTGTCCCTTTTGTCATCACGCTGTCCCTTTTGTCATCACGCTGTCCCTTTTGTCATCACGCTGTCCCTTTTGTCATCACGCTGTCCCTTTTTTTT	CCGGTA 	#55 CCIGGCCAICGCCCCCCCCCCCCCCCCCCCACGACGCCCCCCCC	710 CCCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCCATCTTTCAATTCCAGCATATAATGGTGGGTCCATCTTTCAATTCCAGCATATAATGGTGGGTCCATCTTTCAATTCAGCAATCATGGTGGTTGTTGTTCAGCTTTCAGCATCATGGTTGGT	00   00   00   00   00   00   00   0

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                                                                                                                                                                                                                                                                                                                                                                                                                The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering to a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal filuid (CSP) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (ERK). The method is specifically used to treat (including by gene therapy) or prevent osteoporosis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in clinical trials and for identifying subjects at risk. The present sequence is a human NPY 33 receptor DNA
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                                                                                                                                                                                                                                                                                                                                                Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid.
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Pred. No. 4.1e-174;
0; Mismatches 252; Indels 46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Seguence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;
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/product= "Human neuropeptide Y (NPY) Y3
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89. .1147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concominant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans denhancement of HIV entry into a T cell or macrophage facilitated by dendritic cells. The antibody is useful to treat or prevent HIV infection. The present sequence represents a human polynucleotide, which is used in the course of the invention
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C-type lectin, ICAM3; HIV entry, T cell, macrophage, HIV infection,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleotide sequence of a human polynucleotide.
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Best Local Similarity 80.2%;
Matches 1210; Conservative (
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                                                                                                                                      AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1543
                                                                                                                                                 Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal
                                                                                                                                                                                                                                                                                                                                               stromal cell-derived factor laipha; angiogenesis; atheroscierosis, restemosis; ischaemic stroke; spinal cord injury; infection; ulcer; human immunodeficiency virus; HrV; acquired immunodeficiency syndrome; human immunodeficiency virus; HrV; acquired immunodeficiency syndrome; AlDS; pain; cancer; benign prostatic hypertrophy; diabetes; obesity; anorexta; bullmia; asthma; Parkinson's disease; acute heart failure; hypotension; hypertension; urinary retention; osteoporosis; stroke; anginal pectoris; myocardial infarction; benign prostatic hypertrophy; echizophrenia; dyskinesia; Huntingdon's disease; restenosis; arxiety; schizophrenia; dyskinesia; Huntingdon's disease; restenosis; inflammatory bowel disease; theumatorid arthritis; diabetic retinopathy; inflammatory bowel disease; atherosclerosis; Alzheimer's disease; congestive heart failure; cardiac remodeling; angiogenic diseases; solid tumour; Kaposi Sarcoma; human; gene; ss.
                                                                                                       TITITITITITIAATIGACTGTTGGGAGTTTATGTTCCCTCTAGTTTTTGTGAGGTTTGACT
                                                                        GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAGGACTGTAGAACTGTAGAAGA
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                                                                                                                                                                                                                                                                                                                                        receptor 4; CXCR4; chemotaxis induction; SDF1a;
                                                                                                                                                                                                                                                                                                                   DNA encoding human CXC chemokine receptor 4 (CXCR4).
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89. .1147
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The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stromal cell-derived factor lalpha (SPF1a). The method is used for stimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibition of this process is useful in treatment and prevention of a very wide range of diseases, such as, infection (by bacteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS)), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, cathor asthma, parkinson's disease, acute heart failure, hypotension, hypertension, urinary retention, osteoporosis, anginal pectoris, wycardial infarction, stroke, ulcers, benign prostatic hypertrophy, comparation, osteoporosis, anginal prostatic hypertrophy, comparation, stroke, ulcers, benign prostatic hypertrophy, comparation, and dyskinesias (e.g. Huntingdon's disease), inflammatory of disease, atherosclerosis, resembled and angiogenic disease, congestive cheart failure, cardiac remodeling, angiogenic disease, congestive and Kaposi Sarcoma. This sequence encodes the human CXC chemokine
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tive 0; Mismatches 252; Indels
Disclosure, Fig 1, 26pp, English
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Best Local Similarity 80.2
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Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gene therapy; Hypoxia-regulated protein coding sequence 1679 DNA; standard; 12-NOV-2002 ABV78039 ABV78039 RESULT 9
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The present invention relates to methods for identifying genes and proteins that are implicated in a specific disease or physiological condition. The method comprises comparing the transcriptome/proteome of a condition. The method comprises comparing the transcriptome/proteome of a specialised cell type implicated in a disease or condition with that of second specialised cell type, under two experimental conditions, and contified against the two specialised cell types under experimental conditions. ANYTHE TOWN ANYTHE CONDITIONS AND ANYTHE CONDITIONS. AND ANYTHE AND ANYTHE CONDITIONS AND ANYTHE CONDITIONS AND ANYTHE ANYTHE ANYTHE ANYTHE ANYTHE AND ANYTHE ANYT 163 126 223 186 283 284 AGICGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 343 71 Identifying a gene involved in disease for treating hypoxia-regulated conditions, comprises comparing the transcriptome/protecome of two cell types under different conditions and identifying a differentially regulated gene. antiinflammatory; vulnerary; gynecological; ophthalmological; vaccine; hypoxia; tumourigenesis; angiogenesis; apoptosis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal stress; preeclapmaia; atherosclerosis; inflammatory condition; wound healing; inflammation; erythropoiesis; hair loss; human; gene; ds. 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGTGTATATACACTTCTGATAACTACTC 187 IGCIAATITCAATAAATCITCCIGCCCACCATCIACICCATCATCTTAACTGGCAT 44 geaggracaggrageaggraccerereaggegraringgracecegraaceacaeggeg 12 eceecracidade de la constanción del constanción de la constanci 72 gagaaccagoggraaccardga-----ggggarcagrararacacrrcagaraacracac 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 224 CGICCAITHCAATAGGAICTICCIGCCCACCAICTACTICCTCATCTICTIGACTGGCAT Gaps Š 46; Query Match

50.8%; Score 952.8; DB 6; Length 1679;

Best Local Similarity 80.2%; Pred. No. 4.1e-174;

Matches 1210; Conservative 0; Mismatches 252; Indels 46; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; Kingsman SM, Ward NR, Krige D, Claim 37; Page 378; 538pp; English (OXFO-) OXFORD BIOMEDICA UK LTD. 08-DEC-2000; 2000GB-00030076. 08-FEB-2001; 2001GB-00003156. 25-OCT-2001; 2001GB-00025666. 10-DEC-2001; 2001WO-GB005458 Mundy CR, WPI; 2002-627238/67 WO200246465-A2 sapiens 13-JUN-2002 Z þ Rayner White Homo ઠ 셤 g 6 8 8 g ઠે

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therapy; gene;

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The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polynucleotide sequences given in the specification. These angiogenesis-associated polynucleotide sequences comprise genes that exhibit changes in expression levels as a function of time in tissue undergoing angiogenesis. The method and the polynucleotide sequences of the invention are useful for diagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polynucleotide sequences are also useful in the gene therapy of such disorders. The majogenesis-associated proteins encoded by the polynucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation. ABX08739-ABX08853 represent angiogenesis-associated proteins encoded by the polynucleotide sequences.
1298 GACTIATTIATA----TAAATTTTTTTTTTTCATATTGATGTGTGTCTAGGCAGGACCT 1353
                                                                                                             GIGGCCAAGTICTTAGTIGCTGTATGTCTCGTGGTAGGACTGTAGAA-----AAGGG
                             GTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAGGACTGTAGAACTGTAGAGGAAGA
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22-FEB-2001; 2001US-0854759.
19-APR-2001; 2001US-0285475P.
03-AUG-2001; 2001US-0310025P.
13-NOV-2001; 2001US-0350666P.
29-NOV-2001; 2001US-0354244P.
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Db 352 GGCCTAGCTTTTTCCACTGTTGCCCACCCACCCACCCTTGAGGCCCAA 1011  Oy 1064 GTTCAAAAGCTCCGCCACCACCACCCCCTCTGAGCCTCCTTGGAGCCCCACCTTGAGGCCCCACCTTGAGGCCCCCCCC	RESULT 11 ABX74454 standard; CDNA; 1679 BP. XX XX XX ABX74454;  LD ABX74454; XX XX DT 21-MAR-2003 (first entry) XX Human; microarray; solid surface; immobilised probe; CC-RCC; differential expression profile; aggressive CC-RCC tumour type; Clear cell real carcinoma; M. Moz00279411-A2. XX XX XX XX Homo sapiens. XX
Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;  Soush; Score 952.8; DB 7; Length 1679;  Best Local Similarity 80.24; Score 952.8; DB 7; Length 1679;  Best Local Similarity 80.24; Pice 1744;  Astches 1210; Conservative 0; Mismatches 252; Indels 46; Gaps 6;  44 GCAGGTGCAGGTAGCAAGTAGCCCTCTGAGGCGTTAGGTGCTCGGTAACCACGCTG 103  12 GCGCACCAGGTAGCAAAGTAGCCGATCGAGGCTTAGGTGCTCCAGTAGCACGCAC	224 CCGGTACCTCGCCATTGTCCACGCACCAACGAACGCCAAGGAACTGTTGGCTGA 546  894 AAAGGCGCCATCGTCCACGCCACCAACGACGAAGGAACTGTTGGCTGA 546  584 AAAGGTGGTTATGTGGGCGTCTGGATCCTCTCTCTTGTTATACCTGACTTCAT 606  644 CTTTGCCGACGTCTATGTTGGGCGTCTGATCCTGCTGCTTATACCTGACTTCAT 606  644 CTTTGCCGACGTCTGGGGGGGTCTGGTGGTTCCATTCCTGTGTACCGGACTTCAT 606  644 CTTTGCCGACGTCAGGGGGGGATCATCAGTCATTCTGTGACGG 651  704 CTTTGCCGACGTCAGGGGGGGGATCATCAGTCAGTACATTCTGTGACGG 651  705 CTTTGCCGACGTCAGGGGGGGGGATCATCAGTTCAGTACTGTGACGG 651  706 CTTTGCCGACGTCAGGGGGGGGGGTGTTCAGTTCAGTTC

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respiratory virus infection, respiratory syncytial virus infection,
RSV infection; bronchiolitis; bronchitis; pneumonia; asthma, gene; ss.
GITCAAAAGCICTGCCCAGCAIGCACTCAACTCCAIGAGCAGAGGCTCCAGGCTCAAGAI
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                                                                   The present invention relates to a microarray comprising a matrix of at least one cDNA probe from a set of probes immobilised to a solid surface in a predetermined order, where a row of pixels corresponds to replicates of one distinct probe from the set. The probes are complementary to muchaic acid sequences that are expressed differentially in aggressive as compared to non-aggressive types of clear cell renal carcinoma (CC-RCC) and that hybridise to the probes under high stringency conditions. The microarray is useful for the prognosts of patients with CC-RCC, wherein aggressive and non-aggressive clear cell trenal carcinoma (CC-RCC) wherein differential expression profiles of genes that hybridise with one or more probes immobilised on the microarray. The arrays are useful for gene expression profiling of tumour and normal tissues. The present sequence represents a human cDNA sequence up-regulated in CC-RCC patients
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0; Mismatches 252; Indels 46;
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     carcinoma
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     prognosis of patients with clear
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                                                                                                                                                                                                                                                                                                     Modulating viral infection of a cell, for treating or preventing respiratory virus infections, bronchitis, pneumonia or asthma, by modulating a binding interaction between a cell chemokine-receptor and surface protein of the virus.
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Sequence 1679 BP; 407 A; 400 C; 368 G; 504

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G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell respectation-related disease; antoinmunological-related cell prollferative disease; autoimmune disease; Alzheimer's disease; artherosclerosis; infection; osteoarthritis; allergy; osteoarthritis; allergy; graft versus host disease; Parkinson's disease; diabetes; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; phypertension; hypotension; renal disorder; rheumatoid arthritis; trauma; ulcer; gene; ds.
                                                                         Human CXC chemokine receptor 4 nucleotide SEQ ID NO:75.
                                                                                                                                                                                                                                                                                                    (LIFE-) LIFESPAN BIOSCIENCES INC
                                                                                                                                                                                                                                                                                                                       Brown JP;
                   ABZ42642 standard; DNA; 1679
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                                                       (first entry)
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                                                                                                                                                                                                          Homo sapiens.
                                                       04-MAR-2003
                                                                                                                                                                                                                                              08-AUG-2002
                                     ABZ42642;
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New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or diseases. autoimmune

Disclosure; Fig 1; 523pp; English.

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acidis. Also described: (1) am assay for the detection of a particular GCC acids. Also described: (1) am assay for the detection of aparticular GCC acids and insolated antibody having high specificity and high affinity or any antigenic peptides for GPCRs are useful in detecting an antibodies. The antigenic peptides for GPCRs are useful in detecting an antibodies. The aptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for presence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for dispain of description of specific antibodies are useful for dispaining drugs for treating immune-related disease, growth-related diseases, cell gPCRs and antibodies are useful for dispaining drugs for treating immune-related disease, growth-related diseases, cell attention and antibodies are also useful for dispaining drugs for treating immune-related disease, growth-related diseases, cell disease, or autoimmune disease, e.g. AIDS, Aliahamer's disease, attentions altergies, Crohn's disease, or viral infections of the present constant, dementa, mental recardation, memory loss, epilepsy, asthma, tuberculosis, obseity, natuse, hypertension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis. ABZ42863 to ABZ42869 encode GPCR proteins given in ABSP81875 to ABSP82013 to ABZ42869 encode exemplification of the present invention

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 Length 1679;
 DB 7;
            Pred. No. 4.1e-174;
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Score 952.8;
Pred. No. 4.1
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The invention relates to methods and compositions for inhibiting small cell lung cancer (SCLC) proliferation and metastasis through modulation of the activity or expression of CXC chemokine receptor 4 (CXCR4), and optionally, that of the tyrosine kinase receptor c-Kit. Administration of a CXCR4 inhibitor modulates cellular adhesion and inhibits cellular complete cellular adhesion and inhibits cellular complete cellular adhesion and inhibits cellular sample cellular sample cellular cel
Use of a CXC chemokine receptor 4 (CXCR4) inhibitor, for modulating cellular adhesion or inhibiting proliferation, movement, or morphological change in a small cell lung cancer (SCLC) cell population, or for treating a subject having SCLC.
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The invention relates to a gene expression profile comprising one or more genes (AB234889-AB25692) and generated from a cell type. The cell type is a coronary artery endothelium, umbilical artery or vein endothelium, cortic endothelium, dermal microvascular endothelium, prometrium microvascular endothelium, prometrium microvascular endothelium, prosetate epithelium, renal cortical epithelium, renal proximal tubule epithelium, myometrium microvascular endothelium, prosetate epithelium, renal cortical epithelium, renal proximal tubule epithelium, myometrium microvascular endothelium, prosetate epithelium, renal epithelium, renal epithelium, renal proximal tubule epithelium, muscle, muscle, menal epithelium, umbilical artery smooth muscle, dermal fibroblast, pulmonary artery artery smooth muscle, dermal fibroblast, cortic smooth muscle, mesangial cells, caronary artery smooth muscle, cortic smooth muscle, uterine smooth muscle, lung fibroblast, osteoblasts or prostate erromal cell. The gene expression profile is used for determining the level of RNA expression for a sample, determining the phenotype of a cell and distinguishing cell types. The gene or a protein expression profile is useful information with respect to tumour type and stage, treatment methods, and prognosis. The gene or protein expression profile may also be used for creating microarrays. The microarray is useful for genetic and physical mapping of genomes, DNA sequencing genetic or medical diagnosis, genotyping of organisms, confirming cell or tissue confirming cell or tissue intitications and in identifying promising antibiotics, antiviral or
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tumour; microarray; genome mapping; antibiotic; antiviral; antifungal;
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## ALIGNMENTS

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T.1.  -202-056-4  Cuence 4, Application US/08202056  ENERAL INFORMATION:  APPLICANT: Chuncharapai, Anan APPLICANT: Hebert, Caroline APPLICANT: Kim, Kyung Jin APPLICANT: Kim, Kyung Jin APPLICANT: Lebert, James APPLICANT: Lebert, James APPLICANT: Lebert, James APPLICANT: Lebert, James CORRESPONDENCE: B CORRESPONDENCE: B CORRESPONDENCE: B COUNTRY: Couth San Francisco STATE: California COUNTRY: USA ZIF: 94080 CONTRY: USA ZIF: P4080 CONTRY: USA CONTRY: USA CONTRY: USA CONTRY: USA THER PRICATION DATA: APPLICATION NUMBER: US/08/202 PILING DATE: 25-FEB-1994 CLASSIFICATION DATA: APPLICATION NUMBER: 34,659 REPERENCE/DOCKET NUMBER: 34,659 RE	51.9%; larity 76.1%; Conservative
cation US/ 110N: 110N: 110N: 110N: 1110N: 1110N: 1110N: 11 San Franc 11 San Franc 12 San Franc 13 San Franc 14 San Franc 15 San Franc 16 San Franc 16 San Franc 18 San Franc 19 San Franc 18 San Franc 25 San	cy arva
ULT 1  08-202-056-4  atent No. 5440021  GENERAL INFORMATION: APPLICANT: Chuncharapai APPLICANT: Kim, Kyung J APPLICANT: Lim, Kyung J CONRESS OF SEQUENCES: 8 COUNTRY: USA ZIF: South San Franc STREET: 460 Point San CITY: South San Franc CONVITY: USA ZIF: CALIFORNIC CONFUTER: EMP FC comp CONFUTER: Datin (Gene CONFATING SYSTEM: PC- SOFTWARE: LOVE, RICHARG B REGISTATION NUMBER: PRICATION NUMBER: PRICATION NUMBER: PRICATION NUMBER: TELEFAN: 115/15/2-59-59 TELEFAN: 910/371-7168 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERICICS LENGTH: 1737 bases TYPE: nucleic acid STRANDEDNESS: single TOPOLOGY: linear	similarity 1; Conser
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Similarity 76.1%; Pred. No. 2.3e-195;
31; Conservative 0; Mismatches 301;
OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CURRENT APPLICATION DATA: APPLICATION DATA: TLING DATE: I1-Jun-1993 CLASSIFICATION NUMBER: US/08/076,093A FILING DATE: 11-Jun-1993 CLASSIFICATION DATA: APPLICATION NUMBER: 34,659 REFERENCE/DOCKET NUMBER: 706P2 TELECHONICATION INFORMATION: TELEPHONE: 415/952-5830 TELEFAN: 415/952-9881 INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 INClectides STRANDENDESS: SINGLE
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Best Local Simi
Matches 1391;
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23							10; 09 99 69
Db	RESULT 3 US-08-701-265-3 i Sequence 3, Application US/08701265 i Patent No. 5776457 i CENERAL INFORMATION: APPLICANT: Chuntharapai, Anan APPLICANT: Lee, James APPLICANT: Hebert, Caroline APPLICANT: Hebert, Caroline TITLE OF INVENTION: Antibodies to Human PR4A Receptors	NUMBER OF SEQUENCES: 6 CORRESPONDENCE ADDRESS: ADDRESSEB: Genented: Inc. STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California CONTRY: USA ZIP: 94080	COMPUTER READABLE FORM:  COMPUTER: 3.5 inch, 1.44 Mb floppy disk  COMPUTER: 13M PC compatible  COMPUTER: 18M PC compatible  COMPUTER	CLASSIFICATION: 424  PRIOR APPLICATION DATA:  APPLICATION NUMBER: 08/076093  FILING DATE: 11-Jun-1993  APPLICATION NUMBER: 07/810782  FILING DATE: 19-DEC-1991  PRIOR APPLICATION DATA:	# APPLICATION NUMBER: 07/67/211 FILING DATE: 29-MAR-1991 ATTONREY/AGENT INFORMATION: NAME: Love, Richard B REGISTRATION NUMBER: 34,659 REFERENCE/DOCKET NUMBER: 706P2 TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION: TELECOMMUNICATION INFORMATION:	TELEX: 10/371-7168   INFORMATION FOR SEQ ID NO: 3:   SEQUENCE CHARACTERISTICS:   LENGTH: 173 nucleotides   TYPE: Nucleic Acid   STRANDEDNESS: Single   TOPOLOGY: Linear	Obery Match  Query Match  Best Local Similarity 76.1%; Pred. No. 2.3e-195;  Matches 1391; Conservative 0; Mismatches 301; Indels 136; Gaps 10  Qy 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGGTTGTAGAGC 109  Db 20 GGGGGGCAAAGTGACGCGAGGGCTGAGTTCAGTAACCACGCATCTGAGAAAC 79  Qy 110 GAGTTTGCTAGAAGTGAGGGTTGATAATATAACATTTTGAAAAACTAAAAAAAA

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710 CCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCT 769
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APPLICATION NUMBER: US/08/076, upper Filing Date: 11-un-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/677211
FILING DATE: 29-MRA-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD B.
FERENCE/DOCKET NUMBER: 766P2
FELECOMMUNICATION NUMBER: 766P2
FELEFAX: 415/952-9881
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COMPUTER READABLE FORM:

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Winheatin (Genetech)

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/284,586

FILING DATE:

CLASSIFICATION: 424

PRIOR APPLICATION DATA:
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy dis COMPUTER: IBM PC compatible OPERATING SYSTEM: PC Compatible OPERATING SYSTEM: PC COMPUTED: OPERATING SYSTEM: PC COMPACHED: CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/805,478 FILING DATE: 25-Feb-1997 CLASSIFICATION: 530 PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/284586 FILING DATE: 10-AUG-1994 PRIOR APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 08/076093 FILING DATE: 11-UN-1993 APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: APPLICATION NUMBER: 34,659 REDISTRATION NUMBER: 34,659 RECIEMENT INFORMATION: TELECOMMUNICATION NUMBER: 34,659 REFERENCE/DOCKET 
                                                                                                                                                                           Sequence 3. Application US/08805478; Sequence 3. Application US/08805478; Patent No. S974543
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan APPLICANT: Lee, James APPLICANT: Hebert, Caroline APPLICANT: Hebert, Caroline APPLICANT: Jin Kim, K.
TITLE OF INVANTION: ANTIBODIES TO PF, NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Generace, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
CONTENTY: USA
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TYPE: Nucleic Acid
STRANDEDNESS: Single
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APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INPORMATION:
NAME: LOVE, Richard B.
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: P0706P2P1D2
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 15922-9881
TELESAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                  LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
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US-08-802-627A-3
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                                                                                                                                                                                                                                                                          COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: 1BM PC compatible
COMPUTER: 1BM PC compatible
COMPUTER: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA: -LUCS
COTRARTING SYSTEM: C-LUCS, MS-LUCS
CURRENT APPLICATION DATA: -LUCS
APPLICATION NUMBER: US/08/801,238
FILING DATE: 19-Feb-1997
CLASSIFICATION APPL:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/76093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/76093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY AGENT INFORMATION: NAME: LOVE, Richard B. REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 19-DEC-1991
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   P0706P2P1D1
                                                                                                                                                                                   CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                       Sequence 3, Application US/08801238
Patent No. 5919896
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: P4A RECEPTOR
NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; TYPE: Nucleic Acid
; STRANDEDNESS: Single
; TOPOLOGY: Linear
US-08-801-238-3
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                                                                                                                                                                                                                                                                                                                                                                                     Score 974.4; DB 2; Length 1737;
Pred. No. 2.3e-195;
0; Mismatches 301; Indels 136;
TELECOMMUNICATION INFORMATION:
TELEFAX: 415/952-5810
TELEFAX: 415/952-981
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
TOPOLOGY: Linear
US-08-801-228-3
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 76.1%;
Matches 1391; Conservative
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(US-08-801-228-3)
(US-08-801-228-3)
(Sequence 3, Application US/08801228)
(Patent No. 592241)
(Sequence 3)
(Patent No. 1000)
(Patent No. 1
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COUNTRY: USA
COUNTRY: USA
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy dis
COMPUTER: Des compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/88/801,228
FILING DATE: 19-Feb-1997
CLASSIFICIATION DATA:
APPLICATION NUMBER: 08/284586
FILING APPLICATION NUMBER: 08/284586
FILING APPLICATION NUMBER: 08/076093
FILING DATE: 11-UTN-1993
PRIOR APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT HIFORWATION:
NAME: LOVE, RICHARD
REGISTRATION NUMBER: BC-DOSDENDA
REGISTRATION NUMBER:
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100   CANOLOGIC CONTINUES AND ACCOUNT CONT	APPLICANT: Lee, James APPLICANT: Wood, William I. TITLE OF INVENTION: PF4A Receptors NUMBER OF SEQUENCES: CORRESPONDENCE S. 6 CORRESPONDENCE S. 6 CORRESPONDENCE S. 6 STREET: 1 DNA WAY CITY: South San Francisco STATE: California COUNTRY: UGA ZIP: 94080 COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COMPUTER: TRANSER: Wilperin (Genetech) COMPUTER: TANDER Wilperin (Genetech) COMPUTER: LAPPLICATION DATA: APPLICATION NUMBER: US/09/104,296 FILING DATE: 22-AUG-1996 PRIOR APPLICATION NUMBER: 08/701265 PRIOR APPLICATION NUMBER: 08/701265 PRIOR APPLICATION NUMBER: 08/701265 PRIOR APPLICATION NUMBER: 08/701265 PRIOR APPLICATION NUMBER: 07/810792 PRILING DATE: 19-DEC-1991 ATPONEY/AGENT INFORMATION: NAME: LOVE, RICHARD B. REGISTATION NUMBER: 34,650 RESTERENCE/DOCKET NUMBER: P0706P2CZ TELECOMMUNICATION INPORMATION:	TELEPHONE: 415/952-9881
1 A HI O M	CIGTIGGCTGCCTTACTACATTGGCACCAGGCTCCTCATCACCCCTGGAAATCAT  CAAGCAAGCATGTGACATTGGGATCAGCATCACTCCTCCTCCTCCTCCTGGAAATCAT  CAAGCAAGCATGTGACTTTGACAACCATTGTGCATTCCTTCATCCTCCGAGGCCCT  CAAGCAAGCATTTGACACCCTCTACTGCCTTCCTTCGGGGCCAAATTTAA  AAGCTTCTTCCACTGTTGCTGAACCCCATCCTCTATGCTTTCCTTGGGGCCAAATTTAA  AAGCTTCTTCCACTGTTGTCTGAACCCCATCCTCTTGCTTTCCTTGGGGCCAAATTTAA  AAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTTGCTTTCTTGGTTTTCTTCTTCTTCTTCTTCTTC	1362 ÀÀĠŢĠŢĠĠŢĠĠŢĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠĠ

10; 134 289 169 194 254 350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGC 409 GGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 229 4 AATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG GETAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACCACGGTGTAGAGCCTGTAGAGCCCGAGGCCTTGGTGCTCCGGTAACCACCACGCGAGGGCCTGAGTGCTCCAGTAGCCACGCGCATCTGGAGAAC 51.9%; Score 974.4; DB 3; Length 1737; .arity 76.1%; Pred. No. 2.3e-195; .onservative 0; Mismatches 301; Indels 136; Gaps 8 8 ð

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APPLICANT: Kwon, Douglas S.
APPLICANT: Woo'k, Vvetce
APPLICANT: Van Kooyk, Vvetce
APPLICANT: Geljtenbeck, Tanco
TITLE OF INVENTION: METHODS OF USING A FAC
TITLE OF INVENTION: CELLS
FILE REFERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/09/517,605
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Patent No. 6391567
GENERAL INFORMATION:
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Pred. No. 2.3e-195;
0; Mismatches 301;
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nilarity 76.1%;
Conservative 0
single
STRANDEDNESS: sir
TOPOLOGY: linear
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Best Local Similarity
Matches 1391; Conserv
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1184 ACTITITITIAGGTTACACATITITICAGATATAAAAGACTGACCAATATIGTACAGTITT 1243
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  AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGA
                                                                                                                                      952 GGCCCTAGCTTTCCTCTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA
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llarity 80.2%; Pred. No. 1.2e-190;
Conservative 0; Mismatches 252;
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Patent No. 6429308
GENERAL INFORMATION:
APPLICANT: INFORMATION:
APPLICANT: GOTO, Takeshi
APPLICANT: GOTO, Takeshi
TITLE OF INVENTION: HIV Infection Inhibitors
FILE REFERENCE:
CURRENT FILING DATE: 109/09/582,224A
CURRENT FILING DATE: 2000-07-21
PRIOR APPLICATION NUMBER: PCT/JP99/06534
PRIOR APPLICATION NUMBER: PCT/JP99/06534
NUMBER OF SEQ ID NOS: 5
SOFTWARE: Microsoft Word
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Pred. No. 7.7e-191;
0; Mismatches 252;
CURRENT FILING DATE: 2000-03-02 NUMBER OF SEQ ID NOS: 17 SOFTWARE: PATENTIN Ver. 2.0 SEQ ID NO 14
                                                                                                                                                                                                               Query Match
Best Local Similarity 80.2%;
Matches 1210; Conservative
                                                                                                                       TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                1679
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US-09-016-434-1235

Sequence 1235, Application US/09016434

Sequence 1235, Application US/09016434

Sequence 1235, Application US/09016434

SENERAL INFORMATION:
APPLICANT: Janice Au-Young
APPLICANT: Janice Au-Young
APPLICANT: Jaffrey J. Sellhamer
APPLICANTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 1490
CORRESPONDENCE ADDRESS:
ADDRESSEE: INCYTE PHARMACEUTICALS, INC.
STREET: PALO ALTO
STREET: CALIFORNIA
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MEDIUM TYPE: Floppy disk
COMPUTER: Floppy disk
COMPUTER: Floppy disk
COMPUTER: IGN PC compartable
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,434
FILING DATE: HEREWITH
CLASSIFTCATION:
PRIOR PAPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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                                                                                                                                Score 951.8; DB 4;
Pred. No. 1.2e-190;
0; Mismatches 252;
                                                                                                                                50.7%;
80.2%;
 TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
                                                                                                                             Query Match
Best Local Similarity 80.2
Matches 1209; Conservative
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     ; TYPE: nucleic ac
; STRANDEDNESS: si;
; TOPOLOGY: linear;
; ILBRARY: GENBANK
; CLONE: 9219868
US-09-023-655-1213
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPATER: STEM: PC-DOS/MS-DOS
SOFTWARE: PACENTIN Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
NAME: No. 5759804and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31794
TELECHONE: (312) 474-6300
TELEPHONE: (312) 474-646
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TELEX: 25-3856
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CLASSIFICATI
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                                                                                                                                                                                                                                                                                                       Length 1225;
                                                                                                                                                                                                                                                                                                       45.8%; Score 859; DB 4; Length 12
83.3%; Pred. No. 3.3e-171;
tive 0; Mismatches 180; Indels
CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: 37,071
REFERENCE/DOCKET NUMBER: PA-0002 US
TELECOMONICATION INFORMATION:
TELECHONE: (650) 845-416
INFORMATION FOR SEQ ID NO: 1235:
SEQUENCE CHARACTERISTICS:
LENGTH: 1225 base pairs
TYPE: nucleic acid
STRANDEDNES: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 83.33
Matches 1009; Conservative
                                                                                                                                                                                                                                       LIBRARY: GENBANK
CLONE: 9189313
US-09-016-434-1235
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83.9%; Pred. No. 4.5e-166;
iive 0; Mismatches 164;
INFORMATION FOR SEQ ID NO: 45:
SEQUENCE CHARACTERISTICS:
LENGTH: 1317 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: CDNA
FRATURE:
NAME/KEY: CDS
LOCATION: 201..1211
US-08-153-848-45
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Best Local Similarity
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Job time : 171.281 secs
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STREET: 1 DNA WAY
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 35 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATIBLE
COMPUTER: PROSEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/09104063
Fatent No. US20020168356A1
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,063
FILING DATE: 24-June-1998
CLASSIFICATION:
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APPLICATION NUMBER: 08/701265
FILING DATE: 22-AUG-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/66428
FILING DATE: 06-JUN-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
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Sequence 80, Appli
Sequence 9, Appli
                                                                                                                              May 17, 2004, 12:11:00 ; Search time 918.766 Seconds (without alignments) 9271.041 Million cell updates/sec
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1: /cgn2 6/ptodata/1/pubpna/PCT_NEW_DUB.seq:*
2: /cgn2 6/ptodata/1/pubpna/PCT_NEW_DUB.seq:*
3: /cgn2 6/ptodata/1/pubpna/PCT_NEW_DUB.seq:*
4: /cgn2 6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
5: /cgn2 6/ptodata/1/pubpna/USO6_NEW_PUB.seq:*
6: /cgn2 6/ptodata/1/pubpna/USO8_NEW_PUB.seq:*
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19: /cgn2 6/ptodata/1/pubpna/USO0_NEW_PUB.seq:*
GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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US-10-15-274-14
US-10-172-118-912
US-10-172-118-912
US-10-172-5774-75
US-10-225-66-58
US-10-341-434-177
US-10-341-434-177
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US-10-641-643-1213
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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## ALIGNMENTS

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ATTORNEY/AGENT INFORMATION:  NAME: Love, Richard B.  REGISTRATION NUMBER: 34,659  REGISTRATION NUMBER: P0706P2C2  TELECHONINICATION INFORMATION:  TELEPAN: 415/925-5981  TELEFAX: 910/371-7168  INFORMATION FOR SEQ ID NO: 3:  SEQUENCE CHARACTERISTICS:  IENGTH: 1737 base pairs  TYPE: Nucleic Acid  STRANDENDESS: Single  1 TOPOLOGY: Linear	Query Match Best Local Similarity 76.1%; Score 974.4; DB 9; Length 1737; Best Local Similarity 76.1%; Pred. No. 5.38-214; Matches 1391; Conservative 0; Mismatches 301; Indels 136; Gaps 10; Qy 50 GCAGGTAGCACTCTGAGGGGTTTGGTGCTCCGGTAACCACCACGGCTGTAAGAGC 109 Db 20 GCACGCCAAAAGAGCCCTAAAGAGCCTGAAGAGCCTGAAACCACCAAACCAAACAAA	110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTGTGAAGA	230 TITCAATAGGATCTICCTGCCCACCATCTACTTCATCATCTTGTCTGGCATAGTCGG	255 CAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACAA 350 GTACCGGCTGCACCTGTCAGTGGCTGACCCTCTTTGTCATCACACCCCCTTCTGGGC	375 AGTIGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAACGTCATGTCAT  470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCAGCTGGCTA  435 CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCATCAGCACGCTA  530 CCTCGCCATTGTCCACCACAACAGTCAAAGGCCAAGGAAACTGCTGGAAAAGGC  631 CTCGCCATTGTCCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTG	495 CUIGGCCAICGICCACCAACAGCICAAGGCCAAGGAAGCIGITGGCTGAAAAGGT  590 AGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGGATAACCTGACTTTGC	OY 710 CCCCGATAGCCTGTGGATGGTGTTCAATTCCAGCATATATCTGTGACCGTTCTA 859  QY 710 CCCCGATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCT 769  CO 710 CCCCGATGGGTGGTTCAGTTTCAGCATATGGCTTTGCTTGTTGCTTTTTTGTTTG	

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; Bublication No. US20040037830A1
; GRNERAL INFORMATION:
   APPLICANT: Lee, James
   APPLICANT: Wood, William I.
   TITLE OF INVENTION: Handan PF4A Receptors, Nucleic Acid Encoding and
   TITLE OF INVENTION: Antibodies Binding Thereto
   FILE REFERENCE: P0706P2C2D2C1
   CURRENT APPLICATION NUMBER: US/10/666,689
   CURRENT FILING DATE: 1988-06-24
   PRIOR PILING DATE: 1996-08-22
   PRIOR PILING DATE: 1996-08-22
   PRIOR FILING DATE: 1991-01-19
   PRIOR FILING DATE: 1991-01-19
   PRIOR FILING DATE: 1991-01-19
   PRIOR FILING DATE: 1991-13-19
   PRIOR FILING DATE: 1991-13-19
   PRIOR FILING DATE: 1991-03-29
   NUMBER OF SEQ ID NOS: 6
   TENGTH 1373
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Pred. No. 5.3e-214;
0; Mismatches 301; Indels 136; Gaps
                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 76.1%;
Matches 1391; Conservative
                                                                                                                                                                                                                      TYPE: DNA
ORGANISM: Homo sapien
US-10-666-689-3
JS-10-666-689-3
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        TTTTTTTGTTTGTTTGTTTTTCAGTTTTCAAGAGTAGATTGACTTCAGTCCCTACAAAT 1789
                                                                                                                                GENERAL INCOMENTION:

APPLICANT: Murray.

APPLICANT: Glynne, Richard

APPLICANT: Glynne, Richard

APPLICANT: Watson, Susan R.

APPLICANT: Aziz, Natasha

APPLICANT: Aziz, Natasha

APPLICANT: Eos Biotechnology, Inc.

TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis Modulators

TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators

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CURRENT APPLICATION NUMBER: US 09/781,356

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50.8%; Score 952.8; DB 13; Length 1679;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252; Indels 46;
                                                                                                                                                                          1850 AAAAAAAAAAAAAAAAAAAAAAAAAA 1877
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CORGANISM: Homo sapiens
US-10-211-462-80
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; Sequence 912, Application US/10342887
; Publication No. US20040058340A1
; GENERAL INFORMATION:
; APPLICANT: Dai, Hongyue
; APPLICANT: He, Yudong
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Publication No. US20040053864A1

GENERAL INFORMATION:
APPLICANT: Aming, Michael
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APPLICANTON: MCDUATION OF NEUROPEPTIDE Y ACTIVITY
CURRENT APPLICATION NUMBER: US/10/181,906
CURRENT APPLICATION NUMBER: VG/10/102040
PRIOR APPLICATION NUMBER: PCT/US01/02040
PRIOR FILING DATE: 2001-01-22
NUMBER OF SEQ ID NOS: 16
SEQ ID NO 9
INDRAF: PARCHIN Version 3.0
SEQ ID NO 9
INDRAF: 1679
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CRGANISM: Homo sapiens
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           APPLICANT: Mao, Mao
APPLICANT: Roberts, Christopher J.
APPLICANT: Roberts, Christopher J.
APPLICANT: Van (* Veer, Laura Johanna
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Bernards, Rene
TILE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFERENCE: 9301-186-999
CURRENT PELING DATE: 2003-01-15
PRIOR PELING DATE: 2003-01-15
PRIOR PLING DATE: 2002-05-14
PRIOR PLING DATE: 2002-05-14
PRIOR PLING DATE: 2002-05-14
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PRIOR PLING DATE: 2002-06-14
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Linsley, Peter S.
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Matches 1210; Conservative
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ORGANISM: Homo sapiens
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US-10-342-887-912
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Publication No. US20030064071A1

GENERAL INFORMATION:

APPLICANT: Littman, Dan R.

APPLICANT: Kwon, Douglas S.

APPLICANT: Wan Kooyk, Yvette

APPLICANT: Geijtenbeck, Theo

TITLE OF INVENTION: INTO

TITLE OF INVENTION: CELLS

TITLE OF INVENTION: CELLS

TITLE OF INVENTION: CELLS

TITLE OF INVENTION: USLS

TITLE OF INVENTION: USLS

CURRENT APPLICATION NUMBER: US/10/151,274
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1003 951 1183 1131

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1303 1243 1363

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APPLICANT: Dai, Hongyue
APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter
APPLICANT: Linsley, Peter
APPLICANT: Nao, Mac
APPLICANT: Noberts, Chris
APPLICANT: Van t Veer, Laura
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Der INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
FILE REFERENCE: 9301-175-999
CURRENT APPLICATION NUMBER: US/10/172,118
FRICH APPLICATION NUMBER: 60/380,770
PRIOR FILING DATE: 2002-05-14
NUMBER OF SEQ ID NOS: 2699
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ORGANISM: Homo sapiens
PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM_003467
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                                                                                                                                                                                                                                                Length 1679;
                                                                                                                                                                                                                                                Score 952.8; DB 13; Length
Pred. No. 5e-209;
0; Mismatches 252; Indels
           CURRENT FILING DATE: 2002-05-20
PRIOR PEDLICATION NUMBER: US/09/517,605
PRIOR FILING DATE: 2000-03-02
NUMBER OF SEQ ID NOS: 17
SEG ID NO 14
LENGTH: 1679
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ilarity 80.2%;
Conservative
                                                                                                                                                                  TYPE: DNA
, ORGANISM: Homo sapiens
US-10-151-274-14
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                                                                               ATTIAAAACTICTGCCCAGCACGCACTCTGTGAGCAGAGGGTCCAGCCTCAAGAT 1071
952 GGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTCTATGCTTTCCTTGGAGCCAA 1011
                                                                                                                                                                1072 CCTCTCCAAAGGAAAGCGAGGGGGACATTCATCTGTTTCCACTGAGTCTGAGTCTTCAAG
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50.8%; Score 952.8; DB 13;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252;
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APPLICANT: Ward, Neil Raymond
APPLICANT: Mundy, Christopher Robert
APPLICANT: Kan, On
APPLICANT: Harrie, Robert Alan
APPLICANT: Harrie, Robert Alan
APPLICANT: Harrie, Robert Alan
APPLICANT: Harrie, Robert Alan
APPLICANT: Binley, Katie Mary
APPLICANT: Rayner, William Nigel
APPLICANT: Kingsman, Susan Mary
APPLICANT: Krige, David
TILLE OF INVENTION: ANALYSIS METHOD
FILE REFERENCE: 532632000100
CURRENT APPLICATION NUMBER: US/10/170,385
CURRENT APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR PILING DATE: 2002-06-12
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
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PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR APPLICATION NUMBER: PCT/GB01/05458
PRIOR PRIOR PRIOR PASSESQ FOR WINDOWS VERSION 4.0
SEQ ID NO 3332
LENGTH: 1679
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US-10-170-385-332
Sequence 312, Application US/10170385
Publication No. US20030203372A1
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CORGANISM: Homo Sapiens
US-10-170-385-332
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                                                                        Query Match

50.8%; Score 952.8; DB 13; Length 1679;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252; Indels 46;
               ; DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-912
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AGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCAATCACAGA 1003 1063 101 1071 951 823 883 831 943 891 583 546 643 909 703 651 763 711 771 163 186 246 343 306 403 366 463 426 523 486 71 712 TATCCTGCTGGTATTGTCATCCTGTGTTTGCATTATCATCTCCAAGCTGTCAC CATCCTGCCCGGCATCGTCATCCTCTGTTACTGCATCATCATCTAAGCTGTCACA CTTTGCCTGCTTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG GGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGGCCAA GTTCAAAAGCTCTGCCCAGCATGCACTCCATGAGCAGAGGCTCCAGGCTCAAGAT AAAGGIGGICIAIGIIGGCGICIGGAICCCIGCCICCIGCIGACIAIICCCGACIICAI CTTTGCCGACGTCAGCCAGGGGACATCAGGGGGATGACAGGTACATCTGTGACCG CCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATAATGGTGGGTCT AAAGGAGTCTATGTGGGGGTCTGGATCCCAGCCCTCCTGCTGACTATACCTGACTTCAT 127 ceaggaaareeecrcaeeeaacrareacccareaaeaaacccrorrcereaaeaaa 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGAC GGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA TATCATCTACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA crirideceaace-----reacteacecacaroacearararerereace cricracccaaraacricragagragragrafararacaagracarcaragaccc CTCCAAGGGCCACCAGAAGGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTT GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 12 GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 72 gagaaccagcggtraccargga-----gcggarcagrararacacrrcagaraacracac 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 187 IGCTAATTICAATAAAATCTICCIGCCCACCAICTACICCAICCAICATCTITAACIGGCCAI GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT cresecadricareccerescaacresracirinesaacricciarecaaseca 1012 607 944 1004 952 884 344 307 404 367 427 524 487 584 547 644 704 652 764 824 224 464

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Sequence 75, Application US/10225567A
Squence 75, Application US/10225567A
Squence 75, Application US/10225567A
Squence 10. US20030113798A1
GRNERAL INFORMATION:
GRNERAL INFORMATION:
APPLICANT: LifeSpan Biosciences
APPLICANT: Brown, Joseph P.
APPLICANT: Burmer, Glenna C.
APPLICANT: Burmer, Glenna C.
TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
FILE REPERBNCE: 1920-4-4
CURRENT PELING DATE: 2001-12-19
PRIOR APPLICATION NUMBER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFWARE: Patentin Version 3.1
SEQ ID NO 75. 1465 1423 GIGGCCAAGIICIIAGIAGCIGIIIAAICIGIGIAGACIGIAGAACIGIAGAAGA 1483 9 163 126 223 186 283 71 44 GCAGGTGCAGGTAGCAGTGACCCTTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 164 TOAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 127 cdaggaartgdgctcagggdactargactccargaaggaaccctgrifccgrgaagaaa CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT degeneckáchádzkakarcadecekádecertokártectékárkadákácókorottó GACTTATŤTATA - - - TAAAŤŤŤŤŤŤŤŤŤŤŤŤČŠŤAŤTGAŤĠTĠŤĊŤĀĠĠĊĀĠĠĀĊĊŤ 1354 Greeceaagricrragrigererararicressegadereragae -----aage 1484 AACTGAACATTCCAGAATGTGTGTAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT 1406 AACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTT ctrorcoaladealadedaddadacarroartadricacreadadtordadacricada irircacitcadcitalcacagaigtalaagacittit------iriatacgataaata GAACTTTTTTATGTTACACATTTTCCAGATATAAGAGACTGACCAGTCTTGTACAGTTTT TTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCCTCTAGTTTTGTGAGGTTTGACT tattecttettesatrunki-----cheistricintakiritrikiskasinnaarr 1364 TAATTTATATAAATATTGTTTTTTTTTTTTTTCATGTGAATGAGCGTCTAGGCAGGACCT Gaps 46; Query Match
50.8%; Score 952.8; DB 15; Length 1679;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252; Indels 46; 1466 TATGCATA 1473 1544 GCTGCATA 1551 ; TYPE: DNA; ORGANISM: Homo sapiens US-10-225-567A-75 RESULT 9 US-10-225-567A-75 1244 12 224 1132 1298 1304 1424 1124 1184 ద В g à ò ò g 엄 ద ઠે 임 ò 임 . ∂ 8 8 ò ò ò g ò

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                      1406 AACTGAACATTCCCAGAGCGTGTAGTGAATCACGTAAAGCTAGAATGATCCCCAGCTGTT
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1484 AACTGAACATTCCAGAATGTGTGGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTT
                                                                                                                      RESULT 11
US-10-341-434-177

Squence 177, Application US/10341434

Publication No. US20030215835A1

GENERAL INFORMATION:

GENERAL INFORMATION:

TITLE OF INVENTION: Differentially Regulated Prostate Cancer Genes

TITLE OF INVENTION: Differentially Regulated Prostate Cancer

CURRENT FILING DATE: 2003-01-18

PRIOR APPLICATION NUMBER: US/10/341,434

PRIOR APPLICATION NUMBER: US 60/348,119

PRIOR APPLICATION NUMBER: US 60/348,119

PRIOR FILING DATE: 2002-01-15

NUMBER OF SEQ ID NOS: 238

SOFTWARE: PALENTIN VERSION 3.1

SEQ ID NO 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   46;
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50.8%; Score 952.8; DB 16;
Best Local Similarity 80.2%; Pred. No. 5e-209;
Matches 1210; Conservative 0; Mismatches 252;
                                                                                 1466 TATGCATA 1473
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                                                                                                                                                                                                                                                                                                                                                                               TYPE: DNA
ORGANISM: Homo sapiens
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| NAME/KEY: CDS
| LOCATION: (89)...(1144)
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| US-10-341-434-177
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CCGCTACCTGGCCATCGTCCACCACCACAGAGAGCCCAAGGAAGCTGTTGGCTGA 581
Sequence 20, Application US/09971392

PUBLICATION NO. US2003013428341

GENERAL INFORMATION:
APPLICANT: Peterson, David P.
APPLICANT: Peterson, Cecelia I.
APPLICANT: Cocks, Benjamin G.
TITLE OF INVENTION: REGULATED IN DENDRITIC CELL DIFFERENTIATION
FILE REPERENCE: PA-0029 US
CURRENT APPLICATION NUMBER: US/09/971,392
CURRENT FILING DATE: 2001-10-03
PRICA APPLICATION NUMBER: 60/237,652
PRICA RELING DATE: 2000-10-03
NUMBER OF SEQ ID NOS: 260
SOFTWARE: PERL PROGRAM
SOFTWARE: PERL PROGRAM
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Pred. No. 5e-209;
0; Mismatches 252; Indels
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NAME/KEY: misc_feature
OTHER INFORMATION: Template ID:
NAME/KEY: unsure
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ORGANISM: Homo sapiens
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; OTHER INFORMATION: a, US-09-971-392-20
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Best Local Similarity
Matches 1210; Conserva
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PRIOR APPLICATION NUMBER: 60/276,947
PRIOR FILING DATE: 2001-03-20
NUMBER OF SEQ ID NOS: 805
SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 459
LENGTH: 1711
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                                                                                                        ) OTHER INFORMATION: a, t, c, US-10-101-510-459
                                                                                                                                         Query Match 50.8
Best Local Similarity 80.2
Matches 1210; Conservative
                                                                                        NAME/KEY: modified_base
                                                              TYPE: DNA
ORGANISM: Homo sapiens
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US-101-101-510-459

Sequence 459, Application US/10101510

Sequence 459, Application US/20101510

GENERAL INFORMATION:
APPLICANT: WAN, JACKSON

TITLE OF INVENTION: EXPRESSION PROFILES AND METHODS OF USE
FILE REPRESENCE: 15117.0012,
CURRENT APPLICATION NUMBER: US/10/101,510

CURRENT FILING DATE: 2002-03-20
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                                                                                        Gaps
                                                                                        46;
                                                     Length 1711;
                                                                                        Indels
                                                   Score 952.8; DB 15;
Pred. No. 5e-209;
0; Mismatches 252;
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TYPE: nucleic acid
STRANDEDNESS: single
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LIBRARY: GENBANK
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                                   CITCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTCGGA 926
CITTGCCTGCTGGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGG 943
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Publication No. US20040077003A1
GENERAL INFORMATION COCKS, Benjamin G.
APPLICANT: Susan G. Stuart
General General Composition For TITLE OF INVENTION GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GENERAL GE
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COMPUTER: 1BM PC compatible
OPERATUG SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
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ADDRESSER: INCYTE PHARMACEUTICALS, INC.
STREEF: 3174 PORTER DRIVE
CITY: PALO ALTO
STATE: CALIFORNIA
COUNTRY: USA
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                                                                                                                                          PRIOR APPLICATION DATA:

APPLICATION NUMBER: «Unknown.»

FILING DATE: «Unknown.»

FILING DATE: «Unknown.»

ATTORNEY/AGENT INFORMATION:

RAGISTRATION NUMBER: 37,071

REFERENCE/DOCKET NUMBER: 37,071

REFERENCE/DOCKET NUMBER: PA-0001 US

TELEPHONE: (650) 855-0555

TELEPHONE: (650) 845-4166

INFORMATION FOR SEQ ID NO: 1213:

SEQUENCE CHARACTERISTICS:

LENGTH: 1664 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CLONE: 9219868
; SEQUENCE DESCRIPTION: SEQ ID NO: 1213 :
US-10-641-643-1213
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/641,643
FILING DATE: 14. Aug-2003
CLASSIFICATION: <UNKNOWN>
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CURRENT APPLICATION NUMBER: US/09/880,107
CURRENT FILING DAFF: 2001-06-14
PRIOR APPLICATION NUMBER: US 60/211,379
PRIOR FILING DATE: 2000-06-14
PRIOR FILING DATE: 2000-10-02
NUMBER OF SEQ ID NOS: 3950
SOFTWARE: PATENTIN Ver. 2.1
LENGTH: 1670

TYPE: DNA ORGANISM: Homo sapiens

FEATURE:

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945 GICATCAAGCAAGGAIGIGACTICGAGAGCATIGIGCACAAGTGGAICTCCATCACAGAG 1004
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705 CITTACCCCGATAGCCTGTGGATGGTGTTTCCAATTCCAGCATATAATGGTGGTCTC
                    641 TTCTACCCCAATGACTTGTGGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTT
                                                                                      101 ATCCTGCTGGTATTGTCATCCTGCTATTGCATTATCATCTCCAAGCTGTCACAC
                                                                                                                                                                                                                                                                             881 ATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCCATCACGAG
                                                             AICCIGGCCGGCAICGICAICCICIGITACIGCAICAICAICAGAAGCIGICACAC
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                                                                                Indels 133; Gaps
; OTHER INFORMATION: Genbank Accession No. US20020142981A1 L06797 US-09-880-107-2143
                                                   Length 1670;
                                             Query Match 50.3%; Score 944.8; DB 9; Best Local Similarity 75.9%; Pred. No. 3.5e-207; Matches 1356; Conservative 0; Mismatches 297;
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APPLICANT: Horne, Darci T.
APPLICANT: Wockley, Joseph G.
APPLICANT: Scherf, Uwe
APPLICANT: Gene Logic, Inc.
TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer
FILE REFERENCE: 44921-5028-WO

; Sequence 2143, Application US/09880107; Patent No. US20020142981A1; GENERAL INFORMATION:

RESULT 15 US-09-880-107-2143

	TATGTGGGGATCAGCATCCTTCATCCTTTTGGGAGTCATCAAGCAAG	TICGAGAGCATIGIGCACAAGIGGAICICCATCACAGAGGCCCTGGCCTICTICCACTGT 1025 	TGCCTGAACCCCATCCTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCAT 1085 	GCACTCAACTCCATGAGCAGGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGGGGT 1145 	GGACACTCTTCCGTCTCCACGGAGTCAGGAATCCTCCAGGTTTTCACTCCAGCTAACCCTTA 1205	TGCAAAGACTTATATATATATATATATATAAAAGAACTTTTTTATGTTACACATT 1265 	TICCAGATATAAGAGACTGACCAGICITGIACAGITITITITITITITITATATIGACTGII 1325 	GGGAGTTTATGTTCCTCTAGTTTTTGTGAGGTTTGACTTAATTTATAAATATTATTT 1385 	TTGTTTGTTTCATGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTG 1445	TTTATCTGTGTGTAGGACTGTAGAACTGAAGAAACTGAACATTCCAGAATGTGT 1505 	GGTAAATTGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCG 1565 	AGGAGCACCCCACCCCACCCCCACCCCCATTCTTAAATTGTTTGGTTATGCTGT 1625	1473	GTGATGGTTTGGTTTTTTTTTTTGTTGTTGTTTTTTTTT	GCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGTTTTTTTT	TITITICAGITITICAAGAGIAGATIGACITICAGICCCIACAAAIGIACGAGICIIGIAIIA 1805	sagridarricagcacctac-agraracagrerrgrarra 1624	CATTGTTAATAAAGTCAATGATAAACTTAAAAAAAAAAA	
AAGGCCCTCAAGACCACAGTCA	TATGTGGGGATCAGCATCGACT 	TTCGAGAGCATTGTGCACAAGT	TGCCTGAACCCCATCCTCTATG	GCACTCAACTCCATGAGCAGAG 	GGACACTCTTCCGTCTCCACGG 	TGCAAAGACTTATATAATATAT 	ttccagatataagagactgacc 	GGGAGTTTATGTTCCTCTAGTT	TTGTTTGTTTCATGTGAATGAG	TTTATCTGTGTGTAGGACTGTA 	GGTAAATTGAATAAAGCTAGCC 	AGGAGCACCCCACCCCACCCC		GTGATGGTTTGTTTGGTTTTTT 	GCACTTAAAACCAAAGCCTGAA 	TTTTTCAGTTTTCAAGAGTAC		CATTGTTAATAAAGTCAATGI            AGTTGTTAATAAAGTACATG	
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Search completed: May 17, 2004, 22:14:00 Job time : 934.766 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

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IDENTITY NUC Gapop 10.0 , Gapext 1.0 Title: Perfect score: Sequence: Scoring table:

55026578 27513289 segs, 14931090276 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

EST:\* Database

1: em estba:\*
2: em\_estbum:\*
3: em\_esthum:\*
5: em\_estcov:\*
6: em\_estcov:\*
7: em\_estcov:\*
10: gb\_estc:\*
11: gb\_hc:\*
11: gb\_estc:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

		Description		BU523025 AGENCOURT	BX397685 BX397685	BX421287 BX421287	BX396365 BX396365
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## ALIGNMENTS

BU523025 906 bp mRNA linear EST 13-SEP-2002 AGENCOURT 10154335 NCI CGAP CO24 Mus musculus cDNA clone IMAGE:6529663 5', mRNA sequence. BU523025	EST. Mus musculus (house mouse) Mus musculus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.	l (bases I to 9'06)  National Institutes of Health, Mammalian Gene Collection (MGC)  National Institutes of Health, Mammalian Gene Collection (MGC)  Unpublished (1999)  Email: Gapbs-r@mail.nih.gov  Tissue Procurement: The Cepko Laboratory  Tissue Procurement: The Cepko Laboratory  CDNA Library Preparation: Life Technologies, Inc.  CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  DNA Sequencing by: Agencourt Bioscience Corporation  Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:  http://image.llnl.gov  High quality sequence stop: 668.
RESULT 1 BU523025 LOCUS DEFINITION ACCESSION	KEYWORDS SOURCE ORGANISM	REFERENCE AUTHERS TITLE JOURNAL COMMENT

GGGCCACCCAGAAACGCCCAGGCCCCTCAAGACGACAG 278 38 158 153 338 38 98 98 775 ACCESSION VERSION KEYWORDS SOURCE ORGANISM DEFINITION REFERENCE AUTHORS TITLE JOURNAL COMMENT RESULT 2 BX397685 LOCUS FEATURES ORIGIN g & ద 8 6 a ద 8 8 ò ò 유 ų, 471 414 531 591 534 651 594 ACGICAGCCAGGGGACAICAGGGGGGATGACAGGTACAICTGTGACCGCCTTTACC 711 CCGATAGCCTGTGGATGGTGGTGTTCAATTCCAGCATATAATGGT-GGGTCTCATCCTG 770 CCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGCATATAATGGTGGGGTCTCATCCTG 714 CCCGGCATCGTCATCCTCTTACTGCATCATCATCTTAAGCTGTCACACTCTCCAAG 830 CCCGGCATCGTCATCCTCTCTCTTACTGCATCATCTTCTAAGCTGTCACACTCCAAG 774 /mol\_type="mRNA"
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 /organism="Mus musculus" location/Qualifiers Query Match Best Local Simi: Matches 795; ( 412 355 232 472 415 532 475 592 535 652 595 712 655 771 715 831 52 112 172 FEATURES ORIGIN ठ व ठ 8 8 8 g à g 8 8 8 g 95 Pb 임 õ a ò 셤 දු පු ò g ò

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| clone lib="Homo sapiens PLACENTA COT 25-NORMALIZED" |
| note="list strand cDNA was primed with a NotI-oligo(dT) |
| note="list strand cDNA was primed with a NotI-oligo(dT) |
| primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR V sites of the pCMVSPORT 6 vector. Library was normalized." BX397685 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODIO41YO13 5-PRIME, mRNA sequence.
BX397685.1 GI:30621359 EST.

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Homo sapiens (human)

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Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

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Li, W.B., Gruber, C., Jessee, J. and Polayes, D.

Full-length cDNA libraries and normalization

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BEMail: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODIO41AH07QPI&cluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com VRL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODIO41AH07QPI. Contact: Genoscope

157 152 217 212 277 97 76 CGGCTGTAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAA CATCTGGAGAACCAGCGGTTACCATGGA-----GGGGGATCAGTATATACACTTCAGATAA CTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGA 218 TGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGAC GCCCGGGCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCA dergaracedarecedaarrecedaarecedaddeceraadrecreearageeee Gaps Query Match

38.4%; Score 720.4; DB 13; Length 1091;
Best Local Similarity 82.1%; Pred. No. 2.1e-73;
Matches 881; Conservative 2; Mismatches 169; Indels 21;

272 TGGCATAGICCGCCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAG 337 397 CATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCATCACT

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37.7%; Score 707; DB 13; Length 1
Best Local Similarity 75.0%; Pred. No. 6.7e-72;
Matches 898; Conservative 43; Mismatches 228; Indels
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Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.
1 (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Contact: Genoscope
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BP 191 91006 EVRY cedex - France
Email: seqref@enoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
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ALIZED" olige(dT)	ALIZED" -oligo(dI) and EcoR V
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COT 25-NORMALIZED" B PLACENTA COT 25-NORMALIZED" Was Drimed with a NotI-oligo(dT)	COT 25-NORMALIZED"  B PLACENTA COT 25-NORMALIZED"  Was primed with a NotI-oligo (dT)  enriched, double-strand cDNA was  cloned into the Not I and ECOR U
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                              Gaps
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Length 1201;
ery Match
st Local Similarity 82.0%; Pred. No. 9.7e-72;
tches 884; Conservative 7; Mismatches 161; Indels
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TAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTTTTGTCA 991 1051 512 631 678 331 391 392 451 452 811 ACCESSION VERSION KEYWORDS SOURCE ORGANISM DEFINITION AUTHORS TITLE JOURNAL COMMENT RESULT 6 BX358346 LOCUS REFERENCE g g ò g à 셤 ð g à g ଚ g g ò 셤 ò ò ద 8 ठ 유 Š ద 8 ठ à /organism="Homo sapiens"
/mol\_type="mRNA"
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/db\_xref="taxon.stmsnA"
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/cissue\_type="B\_CELLS (RAMOS CELL LINE)"
/cell\_line="RAMOS CELL LINE"
/clone\_line="RAMOS CELL LINE"
/clone\_line="RAMOS CELL LINE"
/clone="vector: pcMvSpORT\_6; lst strand cDNA was primed with a NorI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Nor I and cloned into the Not I and EcoNY sites of the pcMvSpORT 6 vector.
Library was not normalized." For sapers, betazoa, Chordata, Craniata, Vertebrata, Buteleostomi, Bukaryota, Metazoa, Chordata, Catarrhini, Hominidae, Homo.

E. (Dasses I to 1201)

I. (Dasses I to 1201)

I. (Dasses) Lot 1201)

Contact: Genoscope

Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Email: seqrefagenoscope cns.fr, Web: www.genoscope.cns.fr

Library was constructed by Life. Technologies, a division of

Invitrogen. This sequence belongs to sequence cluster 1272.r For

more information about this cluster, see

http://www.genoscope.cns.fr/

cgi-bin/cluster.cgi?seq=CSODG007BG06QP1&cluster=1272.r. Contact:
Feng Liang Bmail: flang@lifetech.com.URL:

Feng Liang Bmail: flang@lifetech.com.URL:

Location/Qualifiers

Location/Qualifiers 3, BX421511
BX421511 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens cDNA clone CSODG007XM12 5-PRIME, mRNA sequence. 210 211 270 271 330 331 91 ACCACCACGACGACGAGGAGGAGGAAGCCATGGAACCGATCAGTGTGAGTATATACACTT 150 151 90 96 1087 CACTCAACTCCATGAGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGG 1144 1060 CACTCACCTCTGTTAGCAGAGGGKCWAG-CTCAAGATCTCTCWAARGGAAGCGRGGGG 1116 CAGATAACTACMCCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCTGTT Accedroceemarroccessaresiascanastenceceasescorensista 211 TOCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCT 212 recerciadadada a recentrative a recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentrative recentra TCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGC gccaccccmrcriggagaaccacccarcaracaraca-----gccarcacraracacrr 151 CTGATAACTACTCTGAAGAAGTGGGGTCTGGAGTATGACTCCAACAAGGAACCCTGCT AGCGGCCGCCCGGGCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTA 20; Gaps 37.5%; Score 704.6; DB 13; Length 1201; Similarity 81.4%; Pred. No. 1.3e-71; S0; Conservative 7; Mismatches 167; Indels 20; BX421511 BX421511.1 GI:30651194 sapiens (human) Homo sapiens Query Match Best Local Simi Matches 850; Ношо 37 6 152 271 272 ACCESSION VERSION KEYWORDS SOURCE ORGANISM LOCUS DEFINITION REFERENCE AUTHORS TITLE JOURNAL COMMENT RESULT 5 BX421511 FEATURES 셤 원 8 6 6 8 6 ò à g

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BX358346 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens CDNA clone CSODIO36YJ17 5-PRIME, mRNA sequence.
BX358346.1 GI:30370215
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Li,Was, Gruber,C., dessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)
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/organism="Homo sapiens"

/organism="Homo sapiens"

/db xref="taxon:9606"

/db xref="CSOD1035x17"

/clone="CSOD1035x17"

/clone="ph.centh COT 25-NORMALIZED"

/clone="lst strand CDN was primed with a NotI-oligo (dT)

/note="lst strand CDN was primed with a NotI-oligo (dT)

primer: Five prime end enriched, double-strand cDN was

digested with Not I and cloned into the Not I and ECOR V

sites of the pCMVSPORT 6 vector. Library was normalized.
Library was constructed by Life Technologies, a division of Invitrogen. Contact: Feng Liang Email: fliang@lifetech.com URL http://fullength.invitrogen.com/ InvitroGen Corporation 1600 Faraday Avenue Genoscope sequence ID: CSODIO36CE09QP1.
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BX353253 Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED Homo sapiens cDNA clone CSODC003YG03 5-PRIME, mRNA sequence.
BX35253.
BX353253. GI:30347726
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/note="ib="type" sapiens of the prime end enriched, double-strand cDNA was primer into the Not I and Cloned into the Not I and EcoR V gites of the pCMVSPORT 6 vector. Library was normalized."
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                                                               946
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Homo sapiens
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Catarrhini; Hominidae; Homo.

1 (bases 1 to 1201)
Liv.B., Gruber, C., Jessee, J. and Polayes, D.
Full.length cDNA libraries and normalization
Unpublished (2001)
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                                                                                                                                CATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATCTCCATCACAGAGGC
                                                                                         880 cGcchGrreGcrafacracarreGcarcaacarcaaccrccracarccrcGaaar
                        TGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGT
                                                                                                                                                       CAAGGGCCACCACAAAGCGCCAAAAGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTCTT
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1000 CCTAGCTTTCTTCCACTGTTGTYTGAA-CCCATCCTCTATTSTTTCYTGGRG 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23;
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al Similarity 80.4%; Pred. No. 2.2e-69;
863; Conservative 6; Mismatches 182; Indels
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Best Local S:
Matches 863,
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KEYWORDS
SOURCE
ORGANISM
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AUTHORS
TITLE
JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
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BX353253
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                                                                          235 GCTAATTICAATAAAAICTICCIGCCCACCATCATCTCCATCATCTTCTTAACTGGCATT 294
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                                                                                                                                              295 GTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACG
                                                                                                                   GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAQAAGCTAAGGAGCATGACG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1057 TWAÁACTCTGĆCAGĆACGĆÁCTĆÁČŤĆTGTTAGAGAGGGTCMRSCŤČAGATCŤĆ 1110
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RESULT 8
BM545259
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DEFINITION AGENCOURT 6497171 NIH_MGC_124 Homo sapiens cDNA clone IMAGE:5726963
ACCESSION BM545259.1 GI:18777197
KEYNORDS
SOURCE Homo sapiens (human)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

I (bases 1 to 1051)

NIH-MGC http://mgc.nci.nih.gov/.

National Inselitutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)

Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Tissue Procurement: Invitrogen
Contact: Robert Strausberg, Ph.D.
Tissue Procurement: Invitrogen
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cloned (ECORV site is destroyed upon cloning). Average
insert size 1.4 kb, insert size range 0.9-4 kb. Library is
normalized and enriched for full-length clones and was
constructed by C. Gruber (Invitrogen). Research Genetics
tracking code 012."
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/clone="IMAGE:5726963"
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1069 CAA-GGATGTGACTTCGAGGCATTGTGCACAAGTGGATCTCCATCACAGA-GGCCCTCG 1011 1000 940 893 953 880 535 653 595 713 640 773 700 833 760 593 CAAGGGGTGTGAGTTTGAGAACACGGTGCACAAGTGGATTTTCATCACCAAGGGCCCTAG CTITCITCACTGTITGGCTGAACCCCATCCTCTATGCCTTTCCTTGGAGCCCCAATTTAA AATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCCATCATGGTTGGCCTTATCCTGCCT GGTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGGTGTCACACTCCAAGGGC TGGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGAGTCATCAAG CCTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTT - - CCTCGGGGCCAAGTTCAA GCCATCGTCCACCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTC TATGITGGGGTCTGGATCCCTGCCTCTGCTGACTATTCCCGACTTCATCTTTGCCAAC GTCAGCCAGGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCC GATAGCCTGTGGTGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCC GGCATCGTCATCCTCTGTTACTGCATCATCATCTTAAGCTGTCACACTCCAAGGGC TATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGAC AAGCTCTGCCCAGCATGCACTCCATG-AGCAGAGGCTCCAGCCTC 1118 ċ 1012 714 954 881 941 1070 1001 476 594 536 654 641 174 701 761 894 821 969 834 534 g a 8 8 원 장 g g ò Dp à d ò q ò 셤 à  $\delta$ ∂  $\delta$ 

RESULT 9 BX462627

DX462627 Homo sapiens T CELLS (JURKAT CELL LINE) Homo sapiens CDNA clone CSODH005YK10 5-PRIME, mRNA sequence.
BX462627.1 GI:31029445
BX74. Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1. (bases 1 to 1201) Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length CDNA libraries and normalization Unpublished (2001) sapiens (human) Homo sapiens Ношо VERSION KEYWORDS SOURCE ORGANISM DEFINITION ACCESSION

Euteleostomi;

REFERENCE AUTHORS TITLE JOURNAL COMMENT

Contact: Genoscope
Genoscope - Centra National de Sequencage
BP 191 91006 BYRY cedex - France
Bmail: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/cluster.cgi?seq=CSODH005BF05QP1&cluster=1272.r. Contact :
Feng Liang Email : fliang@lifetech.com URL :
http://fulllangth.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODH005BF05QP1.

/organism="Homo sapiens"

source

/mol\_type="mRNA"

/db xref="taxon:966"

/clone="CSOBHOGSYK10"

/tissue\_type="T CELLS (JURKAT CELL LINE)"

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4, 114 126 654 714 706 774 766 834 826 988 174 181 234 241 294 301 354 361 414 421 474 481 534 541 594 601 661 894 ATGTTGGCGACTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGCCAACG ATAGCCTGTGGATGGTGTTTCAATTCCAGCATATAATGGTGGGTCTCATCCTGCCCG Argactrorogoroctrorotrocagitroagoacaroarogocortarocrocoro GTATTGTCATCCTGTCCTGCTATTGCATTATCATCTCCAAGCTGTCAACCTCCAAGGGCC 67 TAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCG 127 GTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTACACGAGAAATGG ATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGCCAATG GATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACC 302 GATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGGATGACGAGGACGACGACAAGTACA GGCTGCACCTGTCAGTGGCTGCTCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTG 362 GGCTGCACTGTCAGTGGCCGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTG 422 Argeceregeaaacregracriregeaacrirecrarecaagecagrecarereaa CTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCG CAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGG 542 CCATTGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCT ATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCATCTTTGCCGACG TCAGCCAGGGGACATCAGTCAGGGGATGACAGGTACATCTGTGACCGCCTTTACCCCG gearcerererererations TAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTG 115 TIGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGG GGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGGATGAAAACGTCCATTTCA 242 ATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTTAACTGGCATTGTGGGGCAATG ATGCCATGGCTGACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACA Gaps 23; 13; Length Indels 35.2%; Score 660.8; DB 13; llarity 82.3%; Pred. No. 1.2e-66; Conservative 0; Mismatches 152; Similarity 815; Query Match Best Local S: Matches 815 355 415 475 482 535 595 602 655 707 175 767 835 827 295 662 715 175 235 임 ద 8 8 8 6 6 6 \$ 8 \$ g ò 8 8 ें 임 원 유 8 8  $\delta$ ò ö ò

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1 (bases 1 to 958)
1 Marhand http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
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                        GABABATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCATCTTAACT
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GAAAACGICCAITICAAIAGGAICTICCIGCCCACCAICIACIICAICAICTICTIGACI
                                                                                GGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGC
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/mol_type="mRNA"
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/clone="Cs0DP006V16"
/tissue_type="FETAL BRAIN"
/dev_stage="fetal"
/clone_lib="Homo sapiens FETAL BRAIN"
/note="Organ: brain; Vector: pCMVSPORT_6; lst strand cDNA was primed with a Not1-oligq (dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoRV sites of the pCMVSPORT 6 vector. Library was not normalized."
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Contact: Genoscope
Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cadex - France
BP 191 91006 EVRY cadex - France
Email: seqref@qenoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=cSODF006D508QPl&cluster=1272.r. Contact :
Feng Liang Email: fliang@alifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODF006DE08QPl.
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Catarrhini, Hominidae, Homo.
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895 GCCIGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTGGGAGTCATCAAGC
                               887 GGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGC
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                                                                                                                     947 Aagggrgrgagrirgagaacacrgrgcacaagrggar-rrcarcaccgaggcc--ragcr
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Bukaryota, Metazoa; Chordata; Craniata; Verte
Bukaryota; Metazoa; Chordata; Catarrhini; Hom
Mammalia; Butheria; Primates; Catarrhini; Hom
1 (bases 1 to 1201)
1i, W. B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
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| wol_type="mRNA" |
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| clone="CSODG003YO19" |
| tissue_type="B CELLS (RAMOS CELL LINE)" |
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BX462182 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens CDNA CLONE CSODGO03Y019 5-PRIME, mRNA sequence.
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1 (bases 1 to 1201)
Li, W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
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Genoscope - Centre National de Sequencage
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BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
http://www.genoscope.com.fr/
cgi-bin/cluster.cgips.eq=CS0DG003AH10QP1&cluster=1272.r. Contact :
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CS0DG003AH10QP1.
                                                                                                                               GAGGAATGGGCTCAGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAT
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.larity 78.0%; Pred. No. 9.7e-63;
Conservative 29; Mismatches 166; Indels 27;
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Homo sapiens
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nes 785; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /clone lib="NOT CGAP Mam1"
//oote="Organ: mammary; Vector: pCMV-SPORT6; Site 1: Sal1; Site 2: Not1; Cloned unidirectionally. Primer: Oligo GT. Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  113
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    Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be
found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llh.gov
Plate: LLAM10254 row: o column: 07

High quality sequence stop: 628.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGT
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                      COMMENT
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/sex="male" Query Match Best Local Simil Matches 715; C 753 813 873 240 933 360 1053 --993 633 FEATURES COMMENT ORIGIN à 원 à g à g 8,6 8 8 8 ద ò q à AA182270 T93 bp mRNA linear EST 06-JAN-1997 mt83f01.rl Soares mouse lymph node NbMLN Mus musculus cDNA clone IMAGE:636505 5' similar to gb:L06797 PROBABLE G PROTEIN-COUPLED RECEPTOR LCR1 HOMOLOG (HUMAN);, mRNA sequence.

AA182270 G::1765810 945 GICAICAAGCAAGGAIGIGACTICGAGAGCAITGIGCACAAGIGGAICICCAICACAGAG 1004 Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. (bases 1 to 793)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and 749 809 884 869 944 344 404 464 464 524 524 584 584 644 644 704 689 764 824 TICTACCCCAATGACTTGTGGGKGGKTGTGTTCCAGTTTWAGCAMATWATGGTTGGCCTT 465 GICATCTACACANICAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGCATCTGGAC CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAA AAGGKGGKCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATC ATCCTGCCCGGCATCGTCATCTCCTGCATCATCATCTAAGCTGTCACAC TCCAAGGGCCACAGAAGGCCAAAGGCCTCAAGACGACAGTCATCCTCATCCTAGCTTTC 345 GACAAGTACAGGCTGCACTGTCAGTGGCCGNCCTCCTTTGTCATCACGCTTCCCTTC AAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATC TITIGCCGACGTCAGCCAGGGGGACATCAGGGGGATGACAGGTACATCTGTGACCGC CTTTACCCCGATAGCCTGTGGATGGTGGTTTTCAATTCCAGCATATAATGGTGGGTCTC TTTGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTCATCCTTTTGGGA GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTC TGGGCAGTTGATGCCATGGCTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCAT resocaerrearecersecaaacresracriressaacricerarecaasecaerecar ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC AGGCCYARCTTTYTTCMMTXTTKTTTXACCCAHCYCTWTGTTTYTT 1029 1005 GCCCTCGCCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTT 1051 Mus musculus (house mouse) Mus musculus EST. 810 345 405 405 465 525 525 585 585 645 645 705 069 165 750 825 885 285 RESULT 13 AA182270 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS

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Waterston, R. The WashU-HHMI Mouse EST Project Unpublished (1996)

TITLE JOURNAL

/tissue\_type="lymph node"
/dev\_stage="4 weeks"
/lab\_host="DH108"
/clone\_lib="Soarss mouse lymph node NbMLN"
/note="Organ: lymph node; Vector: pT7T3D Pac (Pharmacia)
with a modified polylinker; Site\_1: Not I; Site\_2: Eco RI;
list strand cDNA was primed with a Not I - oligo(dT) primer AGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCA 1172 9 TCCATCACAGAGGCCTTCGTTCTTCCACTGTTGCCTGAACCCCATCCTCTATGCCTTC 1052 812 180 872 932 299 992 419 752 9 Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
Washington University School of MedicineP
4444 Porest Park Parkway, Box 8501, St. Louis, MO 63108
Tel: 314 286 1800
Fax: 314 286 1810
Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:388497 300 Arccrirroccedercarcaaccaaccarcreacriccacaccarccrecaccaccarc 121 AIGGIGGGICTCGICCTGCCGGCAICGTCAICCTCTCCTGTIACTGCAICATCTCT ATCCTAGCTTTCTTTGCCTGCTGCCTGCCATATTATGTGGGGATCAGCATCGACTCCTTC ATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGCATCGACTCCTTC 693 ATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAATTCCAGCATATA AAGCTGTCACACTCCAAGGGCCACAGAAGCGCAAGGCCCTCAAGACGACAGTCATCCTC ATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGTGGATC TCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATCCTCTATGCCTTC CTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATGAGCAGAGGCTCC CTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCCAACTCCATGAGCAGAGGCTCC Gaps 13; Length 793; Similarity 92.4%; Pred, No. 4.9e-62; Conservative 0; Mismatches 46; Indels Seg primer: -28M13 rev2 from Amersham High quality sequence stop: 497. Location/Qualifiers 1. .793 /organism="Mus musculus" /mol\_type="mRNN" /strain="C57BL/6J" /db\_xref="taxon:10090" /clone="IMAGE:636505" 1113 420 원 장

480 AG-CTCAAGATCCTTT-CAAAGGAAAGCGGGGTGGACACTCTTCCGTCTCCACGGAGTCA 537 1173 GAATCCTCCAGTTTTCACTCCAGCTAACCTTTTCGATATATAT		rris, N., Dubuque rris, M., Moore, B., R. and 3108	This clone is available royalty-free through Lunb,; contact the IMAGE Consortium (info@image.llnl.gov) for further information. MGI:60995 Seq primer: -26ml3 rev2 ET from Amersham High quality sequence stop: 510. Location/Qualifiers  1. 639 / Corganism="Mus musculus" / mol type="mkNA" / strain="C3H" / strain="C3H" / db xref="raxon:10090" / db xref="raxon:10090" / clone="IMAGE:1120659" / cell line="C2C12" / lab_host="DH108"	/Colone lib=Baretead mouse myotubes MPLRBS" //note=Tvector: pT7T3D-Pac (Pharmacia) with a modified polylinker; Site 1: EcoRI; Site 2: Not!; ist strand cDNA was primed with a Not I - oligo(dT) primer [5/ TGTARCAPACTGAAGGGGGCGCCTTTTTTTTTTTTTTTTTTTTT TGTACCAPACTGAAGGGGGCGCCTTTTTTTTTTTTTTTTT
0 0 11 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	RESULT 14 AAB16049 LOCUS DEFINITION ACCESSION KEYWORDS SOURCE ORGANISM	REFERENCE AUTHORS TITLE JOURNAL COMMENT	FEATURES SOUFCE	

### characteristic muscle proteins

ORIGIN

988 GGATCTCCATCACAGAGGCCCTCGCCTTCTACACTGTTGCCTGAACCCCATCTTATG 1047 1228 ATATATATATGATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAAGAGACTGACC 1287 ô 133 CCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTGCACAAGT 987 CCTICATCCTCTTTGGGAGTCATCAAGCAAGGATGTGGACTTCGAGAGCATTGTGCACAAGT 313 314 GGATCTCCATCACAGAGGCCCTCGCCTTCCACTGTTGCCTGAACCCCATCCTCTATG 373 493 747 554 AIAIAIAIAIAAAAAAAACTITITIAIGIIAAACAATITICCAGAIATAAGAGACTGACC 613 807 867 134 TCTCTAAGCTGTCACACTCCAAGGCCACAGAAGCGCAAGGCCCTCAAGACGACAGAAGTCA 193 73 494 AGTCAGAATCCTCCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAATATAT ATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTTCTTACTGCATCATCA 74 ATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCCTCTCTTACTGCTACTCATCA 808 TCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGCGCAGGCCCTCAAGACGCACAAGTCA 688 GGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGC 14 GGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAATTCCAGC Gaps . 0 Length 639; Query Match 33.1%; Score 621.2; DB 9; Length 6: Best Local Similarity 99.5%; Pred. No. 6.3e-62; Matches 623; Conservative 0; Mismatches 3; Indels 748 928 254 1288 RESULT 15 BX362477 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT ठे वि ठे 8 8 8 6 6 6 6 8 S a ठे 엄청 g 중 점 ò

, , 109 422 469 529 169 169 229 242 289 409 542 649 127 182 302 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 349 362 482 602 603 GGTCTATGTTGGTCTCTGGCTCTGCCTCCTGCTGCTGATTTCCCGACTTCATCTTTGC 662 709 707 /organism="Homo sapiens"
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/cll\_type="CEDLS (JURKAT CELL LINE) COT 10-NORMALIZED"
/cell\_type="T CELLS (JURKAT"
/cell\_lib="Homo sapiens T CELLS (JURKAT CELL LINE) COT
10-NORMALIZED" /note="1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned into the Not I and EcoR vites of the pCMYSPORT 6 vector. Library was normalized. Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see thtp://www.genoscope.ns.fr/
http://www.genoscope.ns.fr/
cgi-bin/cluster.cgi?seq=CSOD015CH05Qp1&cluster=1272.r. Contact
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faraday Avenu Genoscope sequence ID : CSOD015CH05Qp1.
Location/Qualifiers CCCCGATAGCCTGTGGATGGTGGTTCAATTCCAGCATATAATGGTGGGTCTCATCTT 183 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA TTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCATCTTCTTAACTGGCATTGTGGG CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA CCTGGCCATTGTCCACGCCACCAACAGTCAGGGCCAAGGAAGCTGTTGGCTGAAAGGT CGACGTCAGCCAGGGGGACATCAGGGGGGATGACAGGTACATCTGTGACCGCCTTTA GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 110 GAGIGITGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 128 cagcagtraccaraga-----agagarcagrararacactrcagaraacracaaaga AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA TITCAATAGGAICTICCIGCCCACCAICTACTICAICATCTICTIGACTGGCATAGICGG 410 AGTIGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT cracacacteracereracegeacterecrearecreecerreareagemental 590 AGTOTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGC CAACG--------TCAGTANGGCAGATGACAGATATATCTGTGACGCTTCTA GIACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGC Gaps 20; Match
Local Similarity 82.5%; Pred. No. 4.7e-62;
les 738; Conservative 4; Mismatches 133; Indels 20; Query Match Best Local S: Matches 738 20 170 230 243 290 350 363 423 470 483 530 543 650 710 663 source FEATURES ORIGIN

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889 887 829 827 767 828 GGCCACCAGCAAGGCCTTAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGC CCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCT 768 GCCTGGTATTGTCATCCTGTCTATTGCATTATCATCTCCAAGCTGTCACACTCCAA GGGCCACCAGAAGCGCAAAGGCCCTCAAGACGACAGTCATCCTCATCCTAGCTTTTTGC GCCCGGCCATCGTCATCCTCCTGTTACTGCATCATCTCTTAAGCTGTCACACTCCAA 942 890 CIGCIGGCIATIAIGIGGGGAICAGCAICGACICCTICAICCITITGGGA 944 CTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCYTCTKGSAA 708 770 830 888 g ò q ò ò

Search completed: May 17, 2004, 16:08:53 Job time : 5439.72 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

using sw model - protein search, OM protein May 17, 2004, 16:09:21; Search time 134 Seconds (without alignments) 756.974 Million cell updates/sec on: Run

Title: Perfect score:

US-09-367-052-2 1867 1 MEPISVSIXTSDNYSEEVGS.......KRGGHSSVSTESESSSFHSS 359 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1586107 segs, 282547505 residues Searched:

1586107 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

.. Database

Pred. No, is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

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Result No.	Score	Query Match	Length	DB	ID	Description
	186	00	L (C)	~	AAW64778	
N	9	100.0	Ŋ	~	AAY39994	Aay39994 Mouse CXC
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4	$\Gamma$	93.4	349	7	~	145 Rat
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ABB56346	AAW97362	ABU79148	ABU79080	AAR27792	AAW48734	AAB21698	AAU91240	AAR53753	ADC86235	AAW54371	AAY90614	AAG80122	ABP81795	AAE38602	ADC22539	AAY50129	ADC46963	AAW69999	AAY90648
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#### ALIGNMENTS

Mouse; CXC chemokine receptor; pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS. ż Yoshida Tachibana K, Iizasa H, AAW64778 standard; protein; 359 AA. A murine CXC chemokine receptor 97WO-JP000299. 97WO-JP000299. 20-NOV-1998 (first entry) (SHIO ) SHIONOGI & CO LID. Kishimoto T, Nagasawa T, Nakajima T, Yoshie O; WPI; 1998-447232/38. N-PSDB; AAV46370. WO9835035-A1 07-FEB-1997; 07-FEB-1997; 13-AUG-1998. AAW64778; Mus sp. 

Mouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors.

Claim 1; Page 54-56; 76pp; Japanese.

The present sequence represents a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSF/SDF-I. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the mechanism of HIV infection and in screening of potential inhibitors of HIV infection and the development of AIDS

Sequence 359 AA;

Query Match

Length 359; DB 2; 100.0%; Score 1867;

This sequence is the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation ö 180 VILVMGYQKKIRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV 120 240 QGDISQGDDRYICDRLYPDSLWMVVFQFQHIWVGLILPGIVILSCYCIIISKLSHSKGHQ 240 KRKALKITVILILAFFACHLPYYVGISIDSFILLGVIKQGCDFBSIVHKMISITBALAFF 300 VILVMGYOKKIRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV 120 NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTTPDFIFADVS 180 KRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300 9 9 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPIIFLIFLTGIVGNGL NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVS MEPISVSIYISDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLYTIYFIIFLTGIVGNGL QGDISQGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ Gaps CXCR4; mouse; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation. .. 0 inhibiting Indels CXCR4-potentiating agents and methods useful for neovascularization, and treating solid cancers. Pred. No. 9.7e-215; Mismatches 0; Disclosure; Page 49-50; 63pp; Japanese. Tachibana AAY39994 standard; protein; 359 AA 100.001 14 (80.001 Mouse CXCR4 protein sequence. 99WO-JP001448 98JP-00095448 (first entry) (CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T. Kishimoto T, Nagasawa T, Similarity 100. 59; Conservative WPI; 1999-591042/50. N-PSDB; AAZ27611. 23-MAR-1999; 24-MAR-1998; WO9948528-A1 16-DEC-1999 30-SEP-1999 359; 61 121 121 181 241 241 AAY39994; 181 301 301 Mus sp RESULT 2
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Query Match
100.0%; Score 1867; DB 2;
Best Local Similarity 100.0%; Pred. No. 9.7e-215;
Matches 359; Conservative 0; Mismatches 0;
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01-NOV-2001; 2001US-0346382P.
26-NOV-2001; 2001US-0333347P.
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and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies

Sequence 359 AA

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Length 359;

The invention discloses a composition comprising two or more isolated rate or human polymucleotides or a polymucleotide which represents a fragment, derivative or allelic variation of the mucleic acid sequence. Also claimed are a vector comprising the movel polymucleotide, a host cell comprising the vector, a method for identifying a mucleotide sequence which is differentially regulated in an animal subjected to pain and a fit to perform the method, an array, a method for identifying an agent that increases or decrease the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially a compound that regulates the activity of one or more of the compound that regulates the activity of one or more of the polymucleotides, a method for identifying a pharmaceutical composition, a cutyity in an animal of one or more of the polympetides given in the specification, a method for identifying a compound useful in treating pain and a pharmaceutical composition comprising the one or more of the polymetides or their antibodies. The polymucleotide or the compound that compound that regulates its activity is useful for preparing a medicament for treating compliance its activity is useful for preparing a medicament for treating the composition comprising the one or more of the sequence date for this patent did not form part of the printed the sequence date for this patent did not form part of the printed composition, preparesed during pain. Note: the sequence date for this patent did not form dart of the printed composition, but was obtained in electronic form directly from WIPO at the proposition, the sequence date for this patent did not form part of the printed composition. 

Sequence 349 AA;

245 295 120 126 VLILAFISLDRYLAIVHAINSQRPRKLLAEKAVXVGVWIPALLLTIPDFIFADVSQGDIS 185 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAWADWYFGKFLCKAVHIIYTVNLYSS 125 9 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN GYOKKIRSMIDKYRLHLSVADLLFVIILPFWAVDAWADWYFGKFLCKAVHIIYTVNLYSS 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 5; Gaps 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 Query Match Best Local Similarity 95.5%; Pred. No. 4.7e-200; Matches 338; Conservative 4; Mismatches 7; Indels 5; 246 1 8 8 g ò g  $\stackrel{>}{\circ}$ 셤 8 8 δ à

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29-JAN-2004 (first entry) ADE63145;

Rat Protein 008565, SEQ ID NO 9080.

Rat; pain; neuronal tissue; gene therapy; spinal segmental nerve injury; chronic constriction injury; CCI; spared nerve injury; SNI; Chung.

Rattus norvegicus.

The invention discloses a composition comprising two or more isolated rate or human polymucleotides or a polymucleotide which represents a fragment, or human polymucleotides or a polymucleotide which represents a fragment, comprising the vector comprising the novel polymucleotide, a host cell comprising the vector, a method for identifying a nucleotide sequence which is differentially regulated in an animal subjected to pain and a kit to perform the method, an array, a method for identifying an agent that increases or decreases the expression of the polymucleotide sequence that is differentially expressed in neuronal tissue of a first animal subjected to pain, a method for identifying a compound which regulates the expression of a polymucleotide sequence which is differentially expressed in an animal subjected to pain, a method for identifying a compound that regulates the activity of one or more of the composition, a method for producing a pharmaceutical composition or mark of for identifying a compound or small molecule that regulates the activity of one or more of the polypeptides given in the specification, a method for identifying a compound useful in treating copylypeptides or their antibodies. The polymucleotide or the compound that copylypeptides or their antibodies. The polymucleotide or the compound that injury (CCI) and spared nerve injury (SNI) in an animal (e.g. spin etherspy). The sequence presented is a rat protein (shown in Table 2 of the regetification) but was obtained in electronic form directly from WIPO at Edp. wipo.int/pub/published\_pot\_sequence. New composition comprising two or more isolated polypeptides, useful for preparing a medicament for treating pain in an animal. 5; Gaps Costigan M; Claim 1; Page; 1017pp; English. Befort K, 14-AUG-2001; 2001US-0312147P. 01-NOV-2001; 2001US-0346382P. 26-NOV-2001; 2001US-0333347P. 14-AUG-2002; 2002WO-US025765 (GEHO ) GEN HOSPITAL CORP. (FARB ) BAYER AG. D'urso D, WPI; 2003-268312/26. GENBANK; 008565. Sequence 349 AA; WO2003016475-A2 27-FEB-2003 Woolf C, 

Query Match

93.4%; Score 1744.5; DB 7; Length 349;
Best Local Similarity 95.5%; Pred. No. 4.7e-200;
Matches 338; Conservative 4; Mismatches 7; Indels 5;

6 VSIYISDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM

65

185 245 125 9 GYOKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYS\$ 61 GYQKKIRSMTDKYRLHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 126 VIJILARISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 186 OGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 99 g g à 8 g à

us-09-367-052-2.rag

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305

245

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Antibodies directed against the interleukin-8 receptor B can be used to treat or prevent inflammation e.g. psoriasis, dermatitis, rheumatoid arthritis and particularly inflammatory bowel disease and chronic lung inflammation. When immobilised, these antibodies may be used to detect interleukin-8 receptor B expression in cells and tissues and for affinity publification of interleukin-8 receptor B from cells. This sequence is an additional chemokine superfamily receptor which was identified by probing lamda libraries of genomic DNA from a human monocyte-like cell line (L-60) and human peripheral blood lymphocytes using a large fragment of the interleukin-8 type A receptor DNA (see AAQ99006). (Updated on 25-MAR-2003 to correct PP field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Interleukin, IL-8; inflammation; psoriasis; dermatitis;
rheumatoid arthritis; inflammatory bowel disease;
chronic lung inflammation; treatment; antibody; affinity purification;
                         239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKOGCEFENTVHKWISITEALAFFHCCLN
                                                                                          246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antibodies against interleukin 8 type B receptor - used to treat prevent inflammation, also for detecting receptor expression and purificn.
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                                                                                                                                                                                    306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                              299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
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89.9%; Score 1678.5; DB 2; Length 352;
Best Local Similarity 90.1%; Pred. No. 4e-192;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               <u>ن</u>
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                                                                                                                                                                                                                                                                                                                                                   AAR80757 standard; protein; 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chemokine superfamily receptor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HEBE/) HEBERT C.
(CHUN/) CHUNTHARAPAI A.
(KIMK/) KIM K J.
(LEEJ/) LEE J.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1995-283151/37.
N-PSDB; AAQ99007.
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26-MAR-1996
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                    KTTVILILAPPACWLPYYVGISIDSPILLGVIKQGCDFESIVHKWISITEALAPPHCCLN 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2 PF4AR members were identified by probing lambda libraries from human monoclyte-like cell line HL-60 and human peripheral blood lymphocytes using a large fragment of IL-8 receptor DNA (full sequence given in AAQ80520). The nucleotide sequences of the 2 PF4ARs are given in AAQ80521 and AAQ80522, and their respective amino acid sequences in AAR68812 and AAR68813. (Updated on 25-MAR-2003 to correct PN field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            123
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Treatment of inflammatory disorders - by administering an antibody capable of binding a platelet factor 4 superfamily receptor polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
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                                                                                                                                            PILYAFLGAKFKSSAQHAINSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Interleukin-8 receptor; IL-8 receptor; PF4AR; platelet factor superfamily receptor; monocyte; chemotactic; inflammation; inflammatory disease; arthritis; emphysema; cystic; fibrosis; colitis; bronchitis; meningitis; therapeutic.
                                                                                                                 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   89.9%; Score 1678.5; DB 2; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hebert C,
                                                                                                                                                                                                                                                                               AAR68812 standard; protein; 352
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(first entry)
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Matches 319; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human monocyte PF4AR,
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N-PSDB; AAQ80521.
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18-JUL-1995
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Sequence 352 AA;

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This sequence is the human CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, tremedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies
                                                                                                                                                 178
                                                                                                                                                                                                        238
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                                                          GYOXKLRSWIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                  VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                     239 KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                                                                                                           QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                            PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                           PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CXCR4; human; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 47-48; 63pp; Japanese.
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                                                                                                                                                                                                                                                                                                                                                                                               AAY39993 standard; protein; 352
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(KISH/) KISHIMOTO T.
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N-PSDB; AAZ27610.
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                                                                                                                                                                                                                                                                                                                       246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                     4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CXC-chemokine receptor-4, CXCR-4, stromal cell derived factor-1, SDF-1, ligand, chemotaxis; inflammation, G-protein-coupled receptor; signal transduction, CD4-independent; HTV-1; infection, proliferation, transformation, tumoringenesis, cancer; tumour; overexpression; breast, colon; lung, melanoma; glioblastoma; inhibition; growth arrest, diagnosis; prognosis; marker; proliferative disorders; antisense; therapy, treatment; premalignant condition; hypertrophy; degenerative disorder; Parkinson's disease; Alzheimer's disease; growth deficiency; hypoproliferative disorder; physical trauma; lesion; ischaemia; wound.
                                                                                                                              66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                           126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                            6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                64 GYQKKIRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
                                                                                                                                                                                                                                                                             239 KTTVILILAFPACWLPYYIGISIDSFILLBIIKQGCEFENTVHKWISITEALAFFHCCLN
                                                                                                                                                                                                                                                            QGDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
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                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                    306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                         PILYAFLGAKFXTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352
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 89.9%; Score 1678.5; DB 2; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human CXC-chemokine receptor-4 (CXCR-4).
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98US-0104656P.
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Query Match
Best Local Similarity 90.1%
Matches 319; Conservative
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16-OCT-1998;
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hypoproliferative disorders, physical trauma, lesions and wounds Disclosure, Fig 14; 138pp; English.  $\texttt{E}_{\mathsf{X}} (\mathbf{X}, \mathbf{X}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y}, \mathbf{Y$ 

This sequence represents CXC-chemokine receptor-4 (CXCR-4). Chemokine receptors play an important role in the chemotaxis of T-cells and receptors play an important role in the chemotaxis of T-cells and phagocytic cells to areas of inflammation. CXCR-4 is a member of the G-protein-coupled receptor family, which is involved in signal compared factor-1 (SpP-1, AAY52508). CXCR-4 also mediates CD4-independent infection by HIV-1. CXCR-4 has now been found to have a role in the aberrant proliferative behaviour of a number of cell types, including numerous primary tumnous behaviour of a number of cell types, including numerous primary tumnous compared in several brain tumour derived cell lines and compared cell lines. CXCR-4 is involved in cell transformation and derived cell lines and compared in several brain tumour derived cell lines and compared in the continuous proliferation of glioblastoma cancer. CC primary brain tumour tissues, breast tumour tissues, colorectal adenocarcinoma, lung carcinoma and melanoma cell lines. CXCR-4 expression cells, and inhibition of its gene function resulted in growth arrest. Comparesely, overgression resulted in enhanced and rapid cellular confidential complementary to at least a portion of an RNA transcript of a CXCR-4 gene can be used to inhibit hyperproliferation of an RNA transcript of a CXCR-4 gene can be used to inhibit hyperproliferation of an RNA transcript of preventing a disease or disorder; prostate cancer and so premalignant conditions, benign tumours, and also premalignant conditions, benign tumours, con also be used for treating e.g., cirthosis of the liver, keloid for preventing or treating e.g., cirthosis of the liver, keloid for preventing or treating acquition where cell proliferation, proriated and seese or disorder involving a desicency in cell proliferation, proriated and seese included egenerative disorders (e.g., those caused to hypertrophy, and shoulds that promote CXCR-4 function can also be used for treating e.g. cirthosial trauma, less on the solution of t

Sequence 352 AA;

5; Gaps 89.9%; Score 1678.5; DB 3; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5; Query Match Best Local Similarity 90.15 Matches 319; Conservative

178 238 123 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 245 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 GYOKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 65 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----S BADDRYICDRFYPNDLMVVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 99 64 126 186 179 246 239 306 299 원 à g ò g à DP ò g

RESULT 9
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AAE06690 standard; protein; 352 AA

Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid. Human, neuropeptide Y; NPY; bone disease; bone mass; gene therapy; cerebrospinal fluid; CSF; inositol phosphate; IP; Paget's disease; fracture; extracellular signal-regulated kinase; ERK; osteoporosis; osteopena, bone metastasis; neurotransmitter; osteogenic; Human neuropeptide Y (NPY) Y3 receptor. (BAYU ) BAYLOR COLLEGE MEDICINE (AMLI/) AMLING M. 20-JAN-2000; 2000US-00489872. 22-JAN-2001; 2001WO-US002040. (first entry) Amling M, Karsenty G, WPI; 2001-488709/53. N-PSDB; AAD12801. WO200153477-A1. Homo sapiens 26-JUL-2001. 16-OCT-2001 

The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering to a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal fluid (CSF) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (HERK). The method is specifically used to treat (including by gene therapy) or prevent osteoporosis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in clinical trials and for identifying subjects at risk. The present sequence is a human NPY 31 receptor Example 7; Page 85; 102pp; English.

Sequence 352 AA;

Query Match

125 123 185 245 305 65 63 4 ISIYISDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 64 GYQKKIRSMIDKYRLHISVADILFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 126 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS KTTVILILAFPACWLDYXVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 66 GYOKKIRSMTDKYRIHLSVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 5; 89.9%; Score 1678.5; DB 4; Length 352; 90.1%; Pred. No. 4e-192; ive 19; Mismatches 11; Indels 5; Best Local Similarity 90.1% Matches 319; Conservative 246

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KTTVILILAFFACWLPXYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305

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PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESBSSSFHSS 359 

QGDDRYICDRLYPDSLWMVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL

The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concomitant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans enhancement of HIV entry into a T cell or macrophage facilitated by dendritic cells. The antibody is useful to treat or prevent HIV infection. The present sequence represents a human CXCR4 procein, which is a translocation promoting agent that interacts with CD4. This receptor functions in HIV-1 entry into cells 239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298 An antibody for the treatment or prevention of HIV-infection comprises a gpl20 portion which binds to DC-SIGN or is exposed upon gpl20 binding of DC-SIGN due to concomitant conformational change. 306 PILVAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352 Human, receptor, DC-SIGN, dendritic cell, T lymphocyte, HIV, gpl20, C-vye lectin, ICAM3, HIV entry, T cell, macrophage, HIV infection, CXCR4. Geijtenbeek T; Amino acid sequence of human CXCR4 protein. Disclosure; Page 117-118; 131pp; English Van Kooyk Y, Ą AAG79088 standard; protein; 352 28-FEB-2001; 2001WO-US006322. 02-MAR-2000; 2000US-00517605 (UYNY ) UNIV NEW YORK STATE. (UYNI-) UNIV NIJMEGEN. (first entry) Littman DR, Kwon D, WPI; 2001-602565/68. Sequence 352 AA; WO200164752-A2 Homo sapiens. 10-DEC-2001 07-SEP-2001 AAG79088; ò

Chemokine; tumour diagnosis; colorectal; prostatic; organ rejection; inflammation; autoimmune disease; metastasis; bronchial asthma; lupus; chronic bowel inflammation; rheumatodid arthritis; cytostatic; antiinflammatory; autiasthmatic; immunosuppressive; dermatological; antirheumatic; antiarthritic. Spodsberg N; Heitland A, AAG80123 standard; protein; 352 31-MAR-2000; 2000DE-01016013. 02-APR-2001; 2001WO-EP003708 Α, (first entry) Forssmann W, Adermann (IPFP-) IPF PHARM GMBH (FORS/) FORSSMANN U. WPI; 2001-626256/72. Human CXCR4 protein. WO200172830-A2. Homo sapiens. 17-JAN-2002 04-OCT-2001 AAG80123; AAG80123 

This invention describes a novel diagnostic agent (A) comprising at least two different ligands (I) for receptors (II) that are implicated in disease. (A) are used for the diagnosis of tumors (especially colorectal or prostatic), organ rejection, inflammation and autoimmune diseases. Also inhibitors of (I) are used therapeutically against tumors (and their metastases), inflammation (particularly bronchial asthma or chronic bowel inflammation), or autoimmune diseases (rheumatoid arthritis or lupus), where the (cardio) vascular, lymphatic, respiratory, nervous, digestive, endocrine, motor or urogenital systems or skin are affected, and bone on the products of the invention are chemokine derivatives which have cytostatic, antificammatory, antiasthmatic, immunosuppressive, dermatological, antirheumator, antiarthritic. Chemokines act on specific tumor and inflammatory calls through a constellation of these cells. Add80128 represent human chemokine fragments used to illustrate the method of the invention Diagnostic agent containing two or more receptor-specific ligands, useful for detecting tumors, inflammation etc., also therapeutic use of ligand inhibitors. Disclosure; Page 12; 26pp; German. Sequence 352 AA

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Query Match

89.9%; Score 1678.5; DB 4; Length 352;
Best Local Similarity 90.1%; Pred. No. 4e-192;
Matches 319; Conservative 19; Mismatches 11; Indels 5;

65 63

4 ISIYTSDNYTEEMGSGDYDSWKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVW 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM

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Cysteine-X-Cysteine Chemokine Receptor 4; CXCR4 binding peptide; chemoattractant cytokine; human immunodeficiency virus; HIV; HIV; HIV envelope glycoprotein; cellular CD4 receptor; env gene; gp160; gp120; gp41; CD4+ target cell; HIV-infected cell; CXCR4-binding compound; acquired immunodeficiency syndrome; AIDS; human; receptor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1. .39
/note= "Extracellular N-terminus; this is involved in HIV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             HIV entry into
                                                                                                                                                                    KITVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITBALAFFHCCLN 298
                                                                                 GYÇKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                        KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                       123
                                                                                                                             VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                         65
                                                              63
                                                      VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                     Gaps
                                                                                                                                                                                                                                                                    PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                     5
 DB 4; Length 352;
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                     11; Indels
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224. .240
/note= "Intracellular loop 3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               77. .99
//note= "Transmembrane segment 2 (TM2)"
100. .110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              177. .197
/note= "Transmembrane segment 4 (TM4)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Transmembrane segment 1 (TM1)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               segment 3
                                                                                                                                                                                                                                                                                                                                                                                                Human cysteine-X-cysteine chemokine receptor 4.
89.9%; Score 1678.5; DB
90.1%; Pred. No. 4e-192;
live 19; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100. .110
/note= "Extracellular loop 1"
111. .131
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "Transmembrane
132. .176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry into a cell"
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  Query Match
Best Local Similarity 90.1%
Matches 319; Conservative
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65. .76
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The invention relates to a method of identifying Cysteine-X-Cysteine chemokine receptor 4 (CXCR4) binding compounds. The method comprises testing and selecting compounds in a library for their ability to bind to compare the convenent and biological activities (hemoatrractant cytokines) regulate the movement and biological activities of leukocytes in many disease situations. CXCR4 acts as a co-receptor for human immunodeficiency virus (HIV), as it interacts with the HIV envelope glycoproteins and the cellular CD4 ceceptor, to facilitate HIV entry into cells. The HIV glycoproteins (C receptor, to facilitate HIV entry into cells. The HIV glycoproteins consequently cleaved into gpl20 and gp41. Gpl20 binds to CXCR4 and the CD4 receptor present on the surface of susceptible CD4+ target cells, causing the virus to fuse with the cell membranes and thereby facilitating entry of the virus into the cell The eventual expression of the ciuse with uninfected CD4+ cells in membranes and thereby compounds of the invention inhibit the entry of HIV intection compounds of the invention inhibit the entry of HIV intection and the treatment and prevention of inhibit the entry of HIV infection and the treatment and prevention of acquired immunodeficiency syndrome (AIDS). The present sequence represents the human CXCR4 protein used in the method of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Identifying agents that bind to CXC chemokine receptor 4, useful for treatment and prevention of acquired immunodeficiency syndrome, comprises screening compound library for members that bind to the receptor.
241. .261
/note= "Transmembrane segment 6 (TM6)"
262. .282
/note= "Extracellular loop 3, this is involved in HIV
entry into a cell"
                                                                                                                   /note= "Binds HIV gpl20"
280. 281
/note= "Apparently encoded by nucleotides 838-903 (
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                                                                                                                                                                                                                  283. .307
/note= "Transmembrane segment 7 (TM7)"
/note= "Intracellular C-terminus"
/note= "Intracellular C-terminus"
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                                                                                                          note= "Binds HIV gp120"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 3; Fig 3B; 46pp; English.
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21-WAR-2000; 2000US-0191299P.
21-WAR-2000; 2000US-0191299P.
20-MAR-2001; 2001US-00813448.
20-WAR-2001; 2001US-00813651.
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Best Local Similarity 90,1%
Matches 319; Conservative
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N-PSDB; AAK98241.
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                                                                                                                                                                                                                                                                                                             WO200170768-A2
                                                                                          Binding-site
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                                                         123
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(a) providing a library of two or more molecules; (b) providing a molecule with a binding property corresponding to CXCR4, (d) binding a molecule from the library of two or more molecules to the molecule with binding property or more molecules to the molecule with a binding to CXCR4; (d) separating the bound molecule as a binding compound for CXCR4. Also described is a binding compound (1) for CXCR4 identified from M1. (1) has virucide and
                                                                                                                                                                                                                                                                                                                                                                                                                    GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVFVIYTVNLYSS
                                                                                                                          VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                               QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
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20-MAR-2001; 2001US-00813448.
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anti-HIV activities. A partially purified CXCR4 protein is useful for carrying out selection, identification and improvement of tight binding ligands in identifying therapeutically useful compounds. Therapeutic peptides, peptidomimetics, or small molecule antagonists or agonists of CXCR4 binding may be used in the prevention and treatment of AIDS and HIV infection. The present sequence represents human CXCR4 which is given in an example from the present invention
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                                                                                                                                                                            89.9%; Score 1678.5; DB 5; 90.1%; Pred. No. 4e-192; live 19; Mismatches 11;
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Matches 319; Conserv
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THE MAY IS 13:54:59 2004

(SMIK ) SMITHKLINE BEECHAM CORP. 99US-00358624. WPI; 2002-697879/75. N-PSDB; ABS53992. 21-JUL-1999; 

Human CXCR4 protein.

us-09-36/-052-2.rag

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha.

Claim 3; Fig 1; 26pp; English.

The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stronal cell-derived factor lalpha (GDF1a). The method is used for stimulating celemetaxis, and thus angiogenesis, and stroke and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibitchion of this process is useful in treatment and prevention of a very wide range of diseases, such as infection (by bacteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and adquired immunodeficiency syndrome (AIDS), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's disease, acute heart failure, hypotension, hypotension, uninary retention, osteoprosis, anginal pectoris, myocardial infarction, stroke, ulcers, benign prostatic hypertrophy, migraine, vomiting, psychotic and neurological disorders (e.g. anxiety, schizophrenia) and dsykinesias (e.g. Huntingdon's disease), inflammatory disease, rheumatorid arthritis, diabetic retinopathy, inflammatory disease, atherosclerosis, restenosis, Alzheimer's disease, congestive heart failure, cardiac remodeling, angiogenic disease, solid tumours, ceceptor 4 (CXCR4) polynucleotide

Sequence 352 AA;

245 GYQKKIRSWIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTWNLYSS 123 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185 124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLITIPDFIFANV----S 178 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 239 KITVILILAFPACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFPHCCLN 298 GYOKKIRSMIDKYRIHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 EADDRYICDRFYPNDLWVVVFQFQHIMVGLILFGIVILSCYCIIISKLSHSKGHQKRKAL 238 6 5 4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63 VSIYTSDNYSBEVGSGDYDSNKEPCPRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 5; Gapa PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFFHSS 352 ; Score 1678.5; DB 5; Length 352; ; Pred. No. 4e-192; 19; Mismatches 11; Indels 5; 89.9%; 90.1%; Query Match Best Local Similarity 90.1% Matches 319; Conservative 99 64 126 186 179 246 306 g ò g ò g ð g g à ò ò

ABG33065 standard; protein; 352 (first entry) 28-NOV-2002 ABG33065;

299

125

65

6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVM 4 ISIYISDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS

> g ò g ò

63

126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185

64 GYQKKLRSWTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS

The present invention relates to a new method for inducing chemotaxis of endothelial cells (EC). The method of the invention involves treatment with a stromal cell-derived factor is (SPFIalpha). The method is used for stimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury, while inhibition of this process is useful in treatment and prevention of a very wide range of diseases, e.g. infection (by bacteria, tungi, protozoa or viruses), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, asthma, allergies, parkinson's disease, acute heart failure, hypotension, hyperension, contrary retention, osteoporosis, angina pectoris, mycardial infarction, troke, ulcers, migraine, vomiting, psychotic and neurological disorders and dyskinesias, inflammatory disorders, rheumatoid arthritis, diabetic retinopathy, inflammatory disorders, rheumatoid arthritis, diabetic retinopathy, inflammatory bowel disease, atherosclerosis, restenosis, angiogenic diseases, solid tumours, and Kaposi sarcoma. The present amino condition and sequence represents the human CXCR4 protein of the invention unemotaxis; endothelial cell; EC; angiogenesis; atherosclerosis; restenosis; ischaemic stroke; spinal cord injury; infection; bacteria; dimusi; protozoa; virus; pain; cancer; benign prostatic hypertrophy; diabetes; obesity; ancrexia; bulimia; asthma; allergy; hypertension; Parkinson's disease; acute heart failure; hypocension; urinary refention; osteoporosis; angina pectoris; myocardial infarction; stroke; dyskinesia; migraine; vomiting; psychotic disorder; neurological disorder; ulcer; inflammatory disorder; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; atherosclerosis; restenosis; Kaposi sarcoma; Alzheimer's disease; congestive heart failure; cardiac remodelling; anglogenic disease; solid tumour; human; stromal cell derived factor-la; SDF-lalpha; CXCR4. Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha. Gaps 5, 89.9%; Score 1678.5; DB 5; Length 352; 90.1%; Pred. No. 4e-192; tive 19; Mismatches 11; Indels 5; SMIK ) SMITHKLINE BEECHAM CORP Claim 3; Fig 1; 26pp; English. 17-SEP-2001; 2001US-00953717. 99US-00358624. Query Match
Best Local Similarity 90.15
Matches 319; Conservative WPI; 2002-706230/76. N-PSDB; ABS53750. Sequence 352 AA; US2002107196-A1. 21-JUL-1998; 21-JUL-1999; 38-AUG-2002 Gupta SK; 

Search completed: May 17, 2004, 22:16:14 Job time : 141 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

May 17, 2004, 22:14:28; Search time 31 Seconds (without alignments) 597.862 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS........KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

389414 segs, 51625971 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Issued\_Patents\_AA:\* Database :

1: /cgm2 6/ptcdata/2/jaa/5A\_COMB.pep:\*
2: /cgm2 6/ptcdata/2/jaa/5B\_COMB.pep:\*
3: /cgm2 6/ptcdata/2/jaa/6A\_COMB.pep:\*
4: /cgm2 6/ptcdata/2/jaa/6B\_COMB.pep:\*
5: /cgm2 6/ptcdata/2/jaa/PCTUS\_COMB.pep:\*
6: /cgm2 6/ptcdata/2/jaa/PCTUS\_COMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

### SUMMARIES

Description	equence 3,	equence 4,	equence 4,	Sequence 4, Appli	Sequence 4, Appli	4,	4	4,	4	4,	Sequence 6, Appli	ò	é	46	equence 46		equence 46	equence 2,	'n	equence 20	equence 2,	equence 17	O	equence 2,		a)	
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Sequence 330, App	equence 66	equence 66	~	equence 8,	equence 5,	equence 8,	equence 8,	equence 7,	equence 4,	equence 19, App	equence 19	equence 19, App	equence 19, App	, App	Sequence 15, Appl	Sequence 1, Appli
08-513-974	100/-000 00-843	-09-088-337B-6	US-07-759-568-1	US-08-450-393A-8	US-08-390-000A-5	US-08-446-669-8	PCT-US95-00476-8	US-08-202-056-7	US-09-409-778-4	US-08-153-848-19	US-09-299-843A-19	US-09-088-337B-19	m	US-08-153-848-15	US-09-299-843A-15	US-09-251-545-1
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#### ALIGNMENTS

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Chuntharapai, Anan
APPLICANT: Chuntharapai, Anan
APPLICANT: Chuntharapai, Anan
APPLICANT: Kim, Kyung Jin
APPLICANT: Lee, James
Antibodies to Human IL-8 Type B Receptor
INVMERS OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Prancisco
STREET: 460 Point San Bruno Blvd
CITY: South San Prancisco
STREET: 460 Point San Bruno Blvd
CITY: South San Prancisco
STREET: 460 Point San Bruno Blvd
CITY: South San Prancisco
STREET: 180 Prancisco
STREET: 240 Point San Bruno Blvd
CITY: South NUMBER: 180 Prancisco
SOUTHARE: Lamb Prancisco
COMPUTER: 1BM Prancisco
SOTWARE: Datin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: 103/04/202,056
FILING DATE: 29-MAR-1991
ATTORNEY-YAGENT INPORMATION:
NAME: Love, Richard B.
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P3
TELEFAX: 415/952-9881
TELEFAX: 415/952-9881
TELERAX: 415/952-9881
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89.9%; Score 1678.5; DB 1; Length 352;
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
RESULT 1
US-08-202-056-3
; Sequence 3, Application US/08202056
; Patent No. 5440021
; GENERAL INFORMATION:
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245
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                                      64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                              126 VLILAFISLDRYLALVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                       246 KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
                          66 GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
+ ISIYTSDNYTEEMGSGDYDSMKEPCPREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                   186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                             306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                        299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILLSKGKRGGHSSVSTESESSSFHSS 352
                                                                                                                                                                                                                                    LENGTH: 352 amino acids TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS
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239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298

186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245

179 EADDRYICHRFYFNDLWYVYFQFQHINVGLILFGIVILSCYCIIISKLSHSKGHQKRKAL 246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN

VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLIIPDFIFADVSQGDIS

126

64 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYIVNLYSS 123

66 GYOKKLRSMIDKYRLHLSVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125

Gaps

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11; Indels

90.1%; Pred. No. 6.6e-133; ative 19; Mismatches 11;

Best Local Similarity 90.1% Matches 319; Conservative

8 8 8 8 8 8 8 8 8

89.9%; Score 1678.5; DB 1; Length 352;

Query Match

66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123 185 178 245 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 63 124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----S 126 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLTIPDFIFADVSQGDIS 186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 239 KITVILILAFFACWLPYYIGISIDSFILLEIIKOGCEFENTVHKWISITEALAFFHCCLN 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM Gaps 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 .. .. Query Match 89.9%; Score 1678.5; DB 1; Length 352; Best Local Similarity 90.1%; Pred. No. 6.6e-133; Matches 319; Conservative 19; Mismatches 11; Indels 5; Sequence 4, Application US/08284586
Fatent No. 5840856
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Holer, Caroline
APPLICANT: Holer, Caroline
APPLICANT: Holer, Caroline
APPLICANT: Holer, Caroline
APPLICANT: Holer, Caroline
APPLICANT: Holer, Caroline
APPLICANT: Holer, Caroline
APPLICANT: APPLICANT: Caroline
APPLICANT: SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA ZIF: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WINPALIN (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/284,586 FILING DATE:
CLASKIFICATION: 424
PRIOR APPLICATION 1424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
PRIOR APPLICATION NUMBER: 07/677211
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD
NAME: LOVE, RICHARD
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659 LENGTH: 352 amino acids TYPE: Amino Acid TOPOLOGY: Linear ; US-08-701-265-4 246 299 g à 셤 ò g ò g  $\delta$ 

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123
                                                                                                                                                                                                       66 GYOKKIRSMIDKYRIHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
                                                                                                                                                                                                                                                                                                           126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKOGCDFESIVHKWISITEALAFFHCCLN 305
                                                                                                                                                                                                                                                                                                                                                          124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----S 178
                                                                                                    6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65
                                                                                                                                                        63
                                                                                                                                  4 ISIYTSDNYTEEMGSGDYDSMXEPCFRESNANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                    64 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS
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                                                                                                                                                                                                                                                                                                                                                                                                              186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                      Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  5
Query Match 89.9%; Score 1678.5; DB 2; Length 352; Best Local Similarity 90.1%; Pred. No. 6.6e-133; Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/08805478

Patent No. 5874543

GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: ANTIBODIES TO PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COUNTY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/805,478
FILING DATE: 25-Feb-1997
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION UNMBER: 08/076093
FILING DATE: 11-JUN-1993
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TELECOMMUNICATION INPORMATION:
TELEPHONE: 415/225-5530
TELEPAX: 415/922-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
TYPE: Amino Acid
TYPE: Amino Acid

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124 VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLIIPDFIFANV----S 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match

89.9%; Score 1678.5; DB 2; Length 352;
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/08802627A

Patent No. 5892017

GENERAL INFORMATION:

APPLICANT: Lee, James

TITLE OF INVENTION:

NUCLBIC ACID ENCODING PF4A RECEPTOR

TITLE OF SEQUENCES: 6

CORRESPONDENCE ADDRESS:

ADDRESSEE: Genentech, Inc.

SITRET: South San Bruno Blvd

CITY: South San Francisco

STATE: Callifornia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: WinPatin (Genentech)
CURRENY APPLICATION DATA:
PEDLICATION NUMBER: US/08/802,627A
FILING DATE: 19-Feb-1997
PELICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD B.
REGISTRATION NUMBER: 97076
REPERENCE/DOCKET NUMBER: 90706
TELECOMMUNICATION INFORMATION:
TELEFAX: 415/952-9881
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
TYPE: Amino Acid
     07/810782
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                            ; TOPOLOGY: Linear
US-08-805-478-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              USA
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US-08-802-627A-4
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PRIOR DATE: 1.0 TAGG-1594

APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 06/076093
FILING DATE: 1.1 JUN-1993
FRIDK APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, Richard B.
REGISTRATION NUMBER: 90706P2
REFERENCE/FOCKET NUMBER: P0706P2
TELECOMUNICATION INFORMATION:
TELEPANCE: 415/255-9881
TELEPANCE: 415/255-9881
TELEPANCE: 415/255-9881
TELEPANCE: 415/255-9881
TELEPANCE: 10/0/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHRACTERISTICS:

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126 VLILAFISLDRYLAIVHATNSQRPRKLLABKAVYVGVWIPALLLITIPDFIFADVSQGDIS 185
                                                                                                                                                                                                                                                                                                                                                                                                                                           246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITBALAFFHCCLN 305
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                                                                                                                                                                                                                     4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM 63
                                                                                                                                                                                                6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHPNRIFLPTIYFIIFLTGIVGNGLVILVM 65
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                                                                                                                         Length 352;
                                                                                                                                                            11; Indels
                                                                                                                         Query Match

89.9%; Score 1678.5; DB 2;
Best Local Similarity 90.1%; Pred, No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ZIP: 94080
CCMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
CORRATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genenteach)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4, Application US/08801238
; Sequence 4, Application US/08801238
; Patent No. 591986
; GENERAL INFORMATION:
; APPLICANT: Lee, James
; APPLICANT: Wood, William I.
TITLE OF INVENTION: PF4A RECEPTOR
; WUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSE: Genenech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
TYPE: Amino acids

TOPOLOGY: Linear
US-08-802-627A-4
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US-08-801-238-4
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TOPOLOGY: Linear
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TELEX: 91
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US-09-104-296-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              66 GYOKKLRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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| Sequence 4, Application US/08801228
| Patent No. 592541
| GENERAL INFORMATION:
| APPLICANT: Mood, William I. |
| TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF TITLE OF INVENTION: PF4A RECEPTOR NUCLEIC ACID NUMBER OF SEQUENCES: 6
| CORRESPONDENCE ADDRESS: 6
| CORRESPONDENCE ADDRESS: 6
| STREET: 460 Point San Bruno Blvd CITY: South San Francisco |
| STATE: California |
| COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
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Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11;
                                                                                                                                                                                                                                                                      P0706P2P1D1
APPLICATION NUMBER: US/08/801,238 FILING DATE: 19-Feb-1997 CLASSIFICATION: 530
                                    CLASSIFICATION: 5.0
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
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APPLICATION DATA:
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APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION TO A STORY TO TELECOMMUNICATION INFORMATION:
TELEFAN: 910/371-7168
INFORMATION FOR SEG ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
TYPE: Amino Acid
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-801-238-4
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66 GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 ISIYTSDNYTBEMGSGDYDSWKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
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Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible COMPUTER: IBM PC compatible COPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Windpatin (Genetech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/801,228
FILING DATE: 19-Feb-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/264586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUM-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-D6C-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RACHARD REFERENCE/DOCKET NUMBER: 90706F2PID3
REFERENCE/DOCKET NUMBER: 90706F2PID3
TELECOMMULICATION INFORMATION:
MELECOMMULICATION INFORMATION:
MELECOMMULICATION NUMBER: 90706F2PID3
TELECOMMUNICATION INFORMATION:
MELECOMMUNICATION INFORMATION:
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MELECOMMUNICATION INFORMATION:
MELECOMMUNICATION NUMBER: 90.706F2PID3
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Patent No. 6087475
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: FF4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: 415/225-5530
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      415/952-9881
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APPLICANT: Littman, Dan R.
APPLICANT: Littman, Dan R.
APPLICANT: Kwon, Douglas S.
APPLICANT: Kwon, Douglas S.
APPLICANT: Was Kooyk, Yvette
APPLICANT: Was Kooyk, Theo
TITLE OF INVENTION: WETHOUS OF USING A FACILITATOR OF RETROVIRAL ENTRY INTO
TITLE OF INVENTION: CELLS
FILE REFERENCE: 1049-1-017
CURRENT APPLICATION NUMBER: US/09/517,605
UURBERT OF SEQ ID NOS: 17
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            246 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITEALAFFHCCLN 305
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   4 ISIYTSDNYTEEMGSGDYDSMKEFCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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89.9%; Score 1678.5; DB 4; Length
Best Local Similarity 90.1%; Pred. No. 6.6e-133;
Matches 319; Conservative 19; Mismatches 11; Indels
Sequence 4, Application US/09517605
                                                                                                                                                                                                                                                                        SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                ; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-517-605-4
                           Patent No. 6391567
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-450-393A-6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Score 1678.5; DB 3; Length 3; Pred. No. 6.6e-133; 19; Mismatches 11; Indels
                                                                                                        ZIP: 94080
COMPUTER READBLE FORM:
COMPUTER: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                              GOFTWARE: WinPatin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,296
FILING DATE: 24-June-1998
CLASSIFICATION NATE: 06/701265
FILING APPLICATION DATA:
APPLICATION NUMBER: 06/701265
FILING DATE: 22-AUG-1996
FILING DATE: 22-AUG-1996
FILING DATE: 06-JUN-1996
FILING DATE: 06-JUN-1997
FILING DATE: 10-JUN-1997
FILING DATE: 11-JUN-1993
FILING DATE: 11-JUN-1993
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
NAME: LOVE, RICHARD
REFERENCE/DOCKET NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
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TELECOMMUNICATION NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
TELECOMMUNICATION NUMBER: P0706P2C2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
TYPE: Amino Acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 90.1%;
Matches 319; Conservative 19
                       South San Francisco California
      Genentech, Inc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TOPOLOGY: Linear
  ADDRESSEE:
                                                                                          COUNTRY:
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RESULT 10 US-09-517-605-4

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: 352 amino acids
amino acid
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MOLECULE TYPE: protein
HYPOTHETICAL: NO
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PCT-US95-00476-6
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Sequence 6, Application US/08446669

Patent No. 6132997

GENERAL INFORMATION:
APPLICANT: Charo, Israel
APPLICANT: Coughlin, Shaun
TITLE OF INVENTION: MAMMALIAN MONOCYTE CHEMOATTRACTANT
TITLE OF INVENTION: PROTEIN RECEPTORS
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: Cooley Godward Castro Huddleson & Tatum
STREET: 5 Palo Alto Square
CITY: Palo Alto
STREET: California
COUNTRY: USA
ZIP: 94306-2155
COMPUTER: IDMP disk
COMPUTER: IDMP disk
COMPUTER: PATENTE COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTE PATENTIN PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATENTE PATE
                                                                                                                                                                                                   UCAL-237/02US
                                                                                                                                                                                    REPERENCE DOCKET NUMBER: UCAL
TELECOMUNICATION INFORMATION:
TELEPHONE: 415-643-5165
TELERA: 380816CooleyPA
INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acide
FILING DATE: May 25, 1995
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: GESTY, LUARIN
REGISTRATION NUMBER: 31,822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ) MOLECULE TYPE: protein ; HYPOTHETICAL: NO US-08-450-393A-6
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US-08-446-669-6
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Sequence 6, Application PC/TUS9500476

SEQUENTAL INFORMATION:

APPLICANT: The Regents of the University of California TITLE OF INVENTION:

TITLE OF INVENTION:

NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSE:

ADDRESSE:

CONTEXP:

CITY: Los Angeles

STARET:

COUNTRY:

COUNTRY:

SOFTWARE:

SOFTWARE:

SOFTWARE:

SOFTWARE:

SOFTWARE:

SOFTWARE:

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CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Neeley, Richard
REGISTRATION NUMBER: 30,092
REFERENCE/DOCKET NUMBER: UCAI
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-843-5000
TELEFAX: 415-857-0663
TELEFAX: 380816COOLeyPA
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
                                                                                                                                                            30,092
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ATTORNEY/AGENT INFORMATION:
NAME: Berliner, Robert
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125
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    64 GYQKKLRSMTDKYRLHLSVADLLEVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 46, Application US/08153848
Patent No. 5759804
GENERAL INFORMATION:
APPLICANT: Godiska, Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Gray, Patrick W.
APPLICANT: SCHWeikart, Vicki L.
TITLE OF INVENTION: No. 5759804el Seven Transmembrane Receptors
CORRESPONDENCE ADDRESS:
ADDRESSEE: Marshall, O'Toole, Gerstein, Murray &
ADDRESSEE: Bicknell
                                                                                                                                                                                                                                                                                                                                                          2,
                                                                                                                                                                                                                                                                                                                  Length 352;
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                                                                                                                                                                                                                                                                                                           Ouery Match 87.9%; Score 1641.5; DB 5; Best Local Similarity 88.7%; Pred. No. 8.2e-130; Matches 314; Conservative 18; Mismatches 17;
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
CLASSIPICATION: 514
PURDA PEDLICATION DATA:
APPLICATION NUMBER: US 07/977,452
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/153,848
               REFERENCE/DOCKET NUMBER: 55
TELECOMMUNICATION INFORMATION:
TELEPHONE: 310-977-1003
TELEFA:
20,121
                                                                                                                    INFORMATION FOR SEQ ID NO: 6: SEQUENCE CHARACTERISTICS: LENGTH: 352 amino acids TYPE: amino acid
                                                                                                                                                                                                    TOPOLOGY: Tinear
MOLECULE TYPE: protein
HYPOTHETICAL: NO
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADDALL.
STREET: 6300
CITY: Chicago
STATE: Illinois
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US-08-153-848-46
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ATTORNEY AGENT INFORMATION:
NAME: No. 5759804and, Greta E.
REGISTRATION NUMBER: 35,302
REGISTRATION NUMBER: 35,302
REERENGY FOOTET NUMBER: 31794
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION
TELECOMMUNICATION INFORMATION OF SEQUENCE CHARACTERISTICS:
LENGTH: 337 amino acids
TYPE: amino acids
TYPE: amino acids

TOPOLOGY: linear

MOLECULE TYPE: protein
US-08-153-848-46

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137
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                                                                                                                                1 MGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLIGIVGNGLVILVMGYQKKLRSMTDK
                                                                                                                                                                                                        78 YRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILAFISLDRY
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                                                                                                   18 VGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKLRSMTDK
                                                  5; Gaps
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Patent No. 6107475
GENERAL INFORMATION:
APPLICANT: Godiska Ronald
APPLICANT: Gray, Patrick W.
APPLICANT: Schweikart, Vicki L.
TITLE OF INVENTION: No. 6107475el Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 66
CORRESPONDENCE ADDRESS:
Query Match 86.9%; Score 1621.5; DB 1; Length 337; Best Local Similarity 90.4%; Pred. No. 3.7e-128; Matches 309; Conservative 17; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          296 TSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSFHSS 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               318 SSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & ADDRESSEE: Borun STREET: 6300 Sears Tower, 233 South Wacker Drive CITY: Chicago STATE: Illinois COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFWRARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FILING DATE:
CLASSIFICATION: 435
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
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US-09-299-843A-46
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121 LAIVHATNSQRPRKLLABKVVYVGVWIPALLLTIPDFIFANV----SEADDRYICDRFY 175 176 PNDLWVVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFA 235 236 CWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLNPILYAFLGAKFK 295 LAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQGDDRYICDRLY 197 198 PDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKTTVILILAFFA 257 CWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFK 317 5; Gaps Query Match

86.9%; Score 1621.5; DB 3; Length 337;

Best Local Similarity 90.4%; Pred. No. 3.7e-128;

Matches 309; Conservative 17; Mismatches 11; Indels 5; PRIOR APPLICATION DATA:
APPLICATION UNDER: US 09/088,337
FILING DATE: 01-01W-1998
PRIOR APPLICATION DATA:
APPLICATION DATA:
APPLICATION DATA:
APPLICATION UNDER: US 01/57,452
FILING DATE: 17-NOV-1993
APPLICATION UNDER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
FELLING DATE: 17-NOV-1992
ATTORNEY/AGENT INFORMATION:
FELEPHONE: (312) 474-048
TELEPHONE: (312) 474-0448
TELEPHONE: (312) 474-0448
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Search completed: May 17, 2004, 22:22:03 Job time : 37 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model	May 17, 2004, 22:19:12; Search time 547 Seconds (without alignments)	182.625 Million cell updates/se
OM protein	Run on:	

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US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS......KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

1145568 segs, 278261457 residues

Searched:

length: 0 length: 2000000000 Minimum DB seq Maximum DB seq

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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	Description	Sequence	Sequence	Sequence 4	Sequence	Sequence	Seguence	Seguence	Seguence	Sequence	Sequence	Seguence	Seguence	Sequence	Sequence	Sequence
	ar	US-09-953-692-2	JS-09-953-717-2	JS-09-104-063-4	US-10-211-462-81	US-10-666-689-4	US-10-181-906-10	US-09-813-651B-85	US-10-151-274-4	US-10-170-385-331	US-10-225-567A-76	US-10-245-850-1	US-10-251-703-38	US-10-021-660-123	US-10-014-322A-126	US-10-239-423-79
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	Query Match Length DB	352	352	352	352	352	352	352	352	352	352	352	352	352	352	352
₩	Query Match	89.9	89.9	89.9	89.9	89.9	90	6.6	6.68	69.6	9.0	89.9	89.9	89.9	89.9	σα
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	Result No.		N	m	4	ហ	9	7	00	0	10	11	12	13	14	

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S US-10-160-401-3 S US-10-341-434-17-5 S US-10-372-683-2 S US-10-440-464-78 S US-10-452-015-1	US-09-826-509 US-09-870-759- US-09-751-708 US-09-751-708 US-10-292-798 US-10-017-161	2 US-10-411-284-4 4 US-10-251-385-20 4 US-10-225-580-59 4 US-10-345-680-59 4 US-10-251-686-2 5 US-10-295-027-78 5 US-10-295-027-75 2 US-10-411-284-2	US-10-251-385- US-09-817-446-2 US-09-796-744-1 US-09-764-413-2 US-10-039-659- US-10-120-394- US-10-125-567A US-10-126-567A US-10-164-649-
222222	10 10 10 10 10 0 0 <sup>1</sup>		84898888888899999999999999999999999999
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#### ALIGNMENTS

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                                                                                                                                                                                                                                                           s,
                                                                                                                                                                                                                                     89.9%; Score 1678.5; DB 9; Length 352; 90.1%; Pred. No. 1.1e-145; ive 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                         Query Match
Best Local Similarity 90.1
Matches 319; Conservative
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PF4A Receptors

us-09-367-052-2.rapb

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TITLE OF INVENTION: PF4A Recer NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA WAY
CITY: South San Francisco
STATE: California
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US-093-937-17-2
US-09-953-717-2
Sequence 2, Application US/09953717
Sequence 2, Application US/09953717
Sequence 2, Application US/09953717
Sequence 1.0220020107196A1
FORTER NO. US20020107196A1
FILE OF INVENTION: Method for Inducing Chemotaxis in Endothelial Cells by
FITLE OF INVENTION: Method for Inducing Chemotaxis in Endothelial Cells by
FILE REFERENCE: PS6676D1
CURRENT APPLICATION NUMBER: US/09/953,717
FILE REPERSONE: 1999-07-21
FILE REPERSONE: 1999-07-21
FILE REPERSONE: 1999-07-21
FILE REPERSONE: 1999-07-21
FILE REPERSONE: 1999-07-21
SECOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 2
LENGTH: 352
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                                                        239 KTTVILILAFFACWLPYXIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN 298
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                              186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                   KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
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89.9%; Score 1678.5; DB 9; Length
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels
ZUDNING DARA ZIPE GORN:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC COMPATIBLE COMPATIBLE COMPUTER: DARA DELOCATION DATA:

APPLICATION NUMBER: US/09/104,063
FILING DATE: 24-June-1998
CLASSIFICATION DATE: 08/701265
FILING DATE: 22-AUG-1966
FILING DATE: 22-AUG-1966
FILING DATE: 22-AUG-1996
FILING DATE: 12-AUG-1996
FILING DATE: 13-AUG-1996
FILING DATE: 13-AUG-1997
FILING DATE: 11-JUN-1993
FRICK APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
FRICK APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGRNT INFORMATION:
NAME: LOVE, Richard B.
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEPHONE: 415/225-5530
TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO. 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 352 amino acids
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TYPE: Amino Acid
TOPOLOGY: Linear
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RESULT 3
US-09-104-063-4
US-09-104-063-4
Sequence 4, Application US/09104063
Patent No. US20020168356A1
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, WIlliam I.

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NG-10-11-462-81

Sequence 81, Application US/10211462
Sequence 81, Application US/10211462
Sequence 81, Application OS/10211462
Sequence 81, Application NG20040033495A1
Sequence 81, Application NG20040033495A1
Septicant: Grant Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Aziz, Natasha
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Sequence 4, Application US/10666689
Publication No. US20040037830A1
Publication No. US20040037830A1
SERBEAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Hood, William I.
TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Antibodies Binding Thereto
FILE REPRENCE: POT06F2C2D2C1
FURBENT APPLICATION NUMBER: US/10/666,689
CURRENT FILING DATE: 2003-09-19
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89.9%; Score 1678.5; DB 12; Length 352;
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
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CRGANISM: Homo sapiens
US-10-211-462-81
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RESULT 6
10.-101-906-10
1 Sequence 10, Application US/10181906
1 Sequence 10, Application US/10181906
1 Sequence 10, Application No. US20040053864A1
2 GENERAL INVORMATION:
2 APPLICANT: Aming , Michael
3 APPLICANT: Aming , Michael
4 APPLICANT: Aming , Michael
5 TITLE OF INVENTION: MCHADOS AND COMPOSITIONS FOR CONTROL OF BONE FORMATION VIA
6 TITLE OF INVENTION: MCHADOS AND COMPOSITIONS FOR CONTROL OF BONE FORMATION VIA
6 TITLE OF INVENTION: MCHADOS AND COMPOSITION SPORT OF INVENTION WORDER: US/10/181,906
6 CURRENT APPLICATION NUMBER: US/10/181,906
6 CURRENT FILING DATE: 2002-11-13
6 PRIOR FILING DATE: 2001-01-22
6 NUMBER OF SEQ ID NOS: 16
6 SEQ ID NOS: 16
6 SEQ ID NO 10
6 LENGTH: 352
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Pred. No. 1.1e-145;
                                                                                                                                                                                                                                                                                                                                                                                                                                             89.9%; Score 1678.5; DB 12;
90.1%; Pred. No. 1.1e-145;
tive 19; Mismatches 11; I)
PRIOR APPLICATION NUMBER: US 09/104,063
PRIOR FILING DATE: 1988-06-24
PRIOR PILING DATE: 1988-06-24
PRIOR PILING DATE: 1986-08-25
PRIOR APPLICATION NUMBER: US 08/701,265
PRIOR PILING DATE: 1996-06-06
PRIOR PILING DATE: 1996-06-06
PRIOR PILING DATE: 1991-06-11
PRIOR PILING DATE: 1991-06-11
PRIOR PILING DATE: 1991-06-11
PRIOR APPLICATION NUMBER: US 07/810,782
PRIOR PILING DATE: 1991-02-29
PRIOR PILING DATE: 1991-03-29
NUMBER OF SEQ ID NOS: 6
SEQ ID NOS: 6
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90.1%;
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Best Local Similarity 90.1%
Matches 319; Conservative
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; CRGANISM: Homo sapiens
US-10-181-906-10
                                                                                                                                                                                                                                                                                                                              LENGTH: 352
TYPE: PRT
CRGANISM: Homo sapien
US-10-666-689-4
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Best Local Similarity
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QY         246 KTTVILILAFFACWLPYXVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305           Db         239 KTTVILLIAFFACWLPYXIGISIDSFILLEIIKQGCFFENTVHKWISITEALAFFHCCLN 298           QY         306 PILVAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359           Db         299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352	RESULT 8 19.510-151-274-4 19.56quence 4, Application US/10151274 19.56quence 4, Application US/10151274 19.56quence 4, Application No. US2003064071A1 19.56NBRAL INFORMATION: 19.56NBRAL INFORMATION: 19.56NBRAL INFORMATION: 19.56NBRAL INFORMATION: 19.56NBRAL INFORMATION: 19.56NBRAL INFORMATION: 19.56NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION: 19.50NBRAL INFORMATION:	PRIOR FILTING DAME: 2000-03-02  WINTERS OF SEQ ID NOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDNOS: 17  SEQ IDN
Matches         319;         Conservative         19;         Mismatches         11;         Indels         5;         Gaps         1;           Qy         6         VSIYTSDNYSEEVGSGDYDSNKEPCFREENAHFNRIFLPTIYPIFLTGIVGNGLVILVM         65           Db         4         ISIYTSDNYTEEMGSGDYDSNKEPCFREENAHFNKIFLPTIYSIFLTGIVGIVILVM         63           Ch         66         GYQKXLRSMTDKYRLLLSVADLLFVITLPFWANDAMDWYFGRICKAVHIIYTVNLYSS         125           Db         64         GYQKXLRSMTDKYRLLLLSVADLLFVITLPFWANDANAWYFGNFLCKAVHVIYTVNLYSS         123	Qy         126         VLILAFISLDRYLATVHATNSQRPRKLLAEKAVYOGVWIPALLLTIPDFIFADVSQGDIS 185           Db         124         VLILAFISLDRYLAIVHATNSQRPRKLLAEKVVYOGVWIPALLLTIPDFIFANVS 178           Qy         186         QGDDRYICDRLYPDSLAMVVFQFQHIMVGLILPGTVILSCYCIIISKLSHSKGHQKRKAL 245           Db         179         EADDRYICDRLYPDSLAMVVFQFQHIMVGLILPGTVILSCYCIIISKLSHSKGHQKRKAL 238           Qy         246         KTTVILLIAFPACWLPYYOGISIDSFILLGYIKGCCPFSIVHKWISITEALAFFHCCLN 305           Db         239         KTTVILILAFPACWLPYYIGISIDSFILLEIIKQGCEPENTVHKWISITEALAFFHCCLN 298           Qy         306         PILYAFLGAKFKSSAQHALNSNRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359           Db         299         PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352	PERGULT 7  US-09-813-6518-85  Sequence 83. Application US/098136518  Sublication No. US20030018438A1  Sublication No. US20030018438A1  Sublication No. US20030018438A1  Sublication No. US20030018438A1  Sublication No. US20030018438A1  Sublication No. US20030018438A1  TILLE REPRENCE: CMS. Carol  APPLICANT: Tail Sublication UNDER: US/09/813,6518  TILLE REPRENCE: CMS. CO. 00-03-21  CURRENT PAPLICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PELICATION NUMBER: US 60/190,946  PRIOR PRILIA DATE: DOUG-03-21  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35  LENGTH: 35

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US-10-251-703-38

Sequence 38, Application US/10251703

Sequence 38, Application US/10251703

Publication No. US20030148449A1

GENERAL INFORMATION:
APPLICANT: Rolippilos, Athan
APPLICANT: Covic, Lidija

TITLE OF INVENTION: G Protein Coupled Receptor Agonists and TITLE OF INVENTION: Receptors Using the Same
TITLE OF INVENTION: Receptors Using the Same
FILE REFERENCE: NEMC-215 CIP

CURRENT FILING DATE: 2002-09-20

PRIOR APPLICATION NUMBER: 09/841,091

PRIOR APPLICATION NUMBER: 60/198,993

PRIOR APPLICATION NUMBER: 60/198,993

PRIOR FILING DATE: 2000-04-21

NUMBER OF SEQ ID NOS: 41

SEQ ID NO 38

LENGTH 352

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                                                                                                                                                                                          KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITBALAFFHCCLN 305
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                                                                                                    EADDRYICDRRYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
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COTER INFORMATION: Description of Artificial Sequence: Pepducin US-10-251-703-38
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89.9%; Score 1678.5; DB 14; Length 352;
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT ORGANISM: Artificial Sequence
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RESULT 13

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US-10-014-322A-126
; Sequence 126, Application US/10014322A
; Sequence 126, Application No. US20030167129A1
; GENERAL INFORMATION:
; APPLICANT: Wilson, Carol
; APPLICANT: Wilson, Carol
; APPLICANT: Kates, Steven
; APPLICANT: Kates Steven
; APPLICANT: Kates Steven
; APPLICANT: Kates US/10/014,322A
; TILLE OF INVENTION: Binding Compounds and Methods for Identifying Binding Compounds
; TILLE REFERENCE: CNS-008
; CURRENT APPLICATION NUMBER: US 60/243,587
; PRIOR PILING DATE: 2000-10-27
; PRIOR APPLICATION NUMBER: US 09/813,651
; PRIOR FILING DATE: 2001-03-20
Sequence 123, Application US/10021660

Sequence 123, Application WS/10021660

Sequence 123, Application No. US20030152926A1

GENERAL INFORMATION:
APPLICANT: Murray, Richard
APPLICANT: Mateon, Susan R.
APPLICANT: GIVENTION: No. US20030152926A1e1 Methods of Diagnosis of Angiogenesis,
TITLE OF INVENTION: Compositions and Methods of Screening for Angiogenesis
TITLE OF INVENTION: Modulators
FILE OF INVENTION: Modulators
FILE REPERBNCE: 018501-000100S
CURRENT APPLICATION NUMBER: US/09/784,356
PRIOR PLING DATE: 2001-12-06
PRIOR PLING DATE: 2000-08-11
NUMBER OF SEQ ID NOS: 135
SOFTMARE: PRESENCE OF Windows Version 3.0
SEQ ID NO 123
LENGTH: 352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      66 GYOKKIRSMIDKYRIHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
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Best Local Similarity 90.1%
Matches 319; Conservative
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ORGANISM: Homo sapiens
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Search completed: May 17, 2004, 22:38:46 Job time : 549 secs
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US-10-239-423-79

US-10-239-423-79

SQUEDICATION NO. US2000186889A1

SUBJICATION NO. US2000186889A1

GENERAL INFORMATION:

APPLICANT: FORSEMANN, Wolf-Georg; FORSEMANN, Ulf; ADERWANN, Knut;

APPLICANT: HETTLAND, Aleksandra; SPODSBERG, Nikolaj

TITLE OF INVENTION: Cell Surface Proteome of Tumor and Inflammation Cells and TITLE OF INVENTION: For Treating Tumor Diseases and Inflammation Cells and TITLE OF INVENTION: Preferably with the Aid of Specific Chemokine

TITLE OF INVENTION: Receptor Analysis and Chemokine Receptor/Ligand Interaction

FILE REFERENCE: 022217us

CURRENT APPLICATION NUMBER: DE10016013.1

PRIOR FILING DATE: 2002-09-23

CURRENT FILING DATE: 2000-03-31

NUMBER OF SEQ ID NOS: 84

SOFTWARE: Patentin Ver. 2.1

SEQ ID NO 79

LENGTH: 352

LENGTH: 352

LENGTH: 352

CORANISM: Artificial Sequence
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) OTHER INFORMATION: Amino Acid Sequence for the Generation of Antibodies
US-10-239-423-79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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89.9%; Score 1678.5; DB 14; Length 352;
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 90.1%; Pred. No. 1.1e-145;
Matches 319; Conservative 19; Mismatches 11; Indels 5;
PRIOR APPLICATION NUMBER: US 09/813,653
PRIOR FILING DATE: 2001-03-20
PRIOR PPLICATION NUMBER: US 09/813,448
PRIOR FILING DATE: 2001-03-20
NUMBER OF SEQ ID NOS: 126
SOFTWARE: Patentin version 3.0
LENGTH: 352
                                                                                                                                                                                                              TYPE: PRT
ORGANISM: Homo sapiens
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Gaps

	299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 352	299	Dp
	306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359	306	ò
298	KTTVILILAFFACWLFYYIGISIDSFILLEIIKQGCEFENTVHKWISITEALAFFHCCLN	239	д
305	KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFBSIVHKWISITEALAFFHCCLN 305	246	ò
238	SADDRYICDREYPNDLWVVVFQFQHIMVGLILFGIVILSCYCIIISKLSHSKGHQKRKAL	179	g
245	186 QGDDRYICDRLYPDSLMMVVFQFQHINVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245	186	à
178	VLILAFISLDRYLAIVHATNSQRPRKULAEKVVYVGVMIPALLLITIPDFIFANVS	124	В
185	126 VLILAPISLDRYLAIVHATNSQRPRKLLAEKAVYVGVMIPALLLTIPDPIFADVSQGDIS	126	ò
123	GYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSS	64	gg
125	GYOKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125	99	à
63		4	g
65	VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 65	v	ઠે

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OM protein - protein search, using sw model

May 17, 2004, 21:33:47; Search time 44 Seconds (without alignments) 784.835 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS.......KRGGHSSVSTESESSSFHSS 359

Title: Perfect score: Sequence:

Scoring table:

283366 segs, 96191526 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 Searched:

283366

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR 78:\*
1: pir1:\*
2: pir2:\*
3: pir3:\*
4: pir4:\* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES		
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	Description	fusin (LESTRA) - c	peptide Y/pe	>	c	chemokine (C-C) re	interleukin-8 rece	G protein-coupled	interleukin-8 rece	interleukin-8 rece	interleukin-8 rece	lymphocyte-specifi	G protein-coupled	orphan G protein-c	chemokine (C-C) re	ı	interleukin-8 rece	rec	protein-coup	G protein-coupled			G protein-coupled	C	a)	G protein-coupled	G protein-coupled	ပ္ပ		ы (С)
SUMMARIES			A45747	S28787	JE0349	A57160	123	55	S42096	A53752	A53611	B55735	JC5068	JC4304	JC4587	856162	A48921	A39445	S26667	5	842628		855594	158186	I38450	JC5067	JN0621	A43113	JC2443	G02436
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	æ	! ຕ !	352	353	367	360	355	378	356	358	360	378	369	355	360	327	359	350	372	378	374	374	383	354	374	355	350	352	360	355
d	ر تر وه		89.9	87.4	31.4	30.6	29.5	٥.	σ.	29.5	6	28.8	28.7	28.5	28.4	8	28.0	28.0	œ.	7	27.7	27.2	7	è.	26.6	ġ	25.9	25.9	25.7	
	Score	679.	ω.	63	85.	570.5	51.	50.	47.	44.	44.	37.	m	m	3	'n	ë.	522.5	ď	œ.	ŗ.	'n	O	O	496	σı	484	483.5	479.5	76.
	Result No.	1	7	m	4	ĸ	9	7	80	σ	10	11	12	13	14	15	16	17	18	13	20	21	22	23	24	25	56	27	28	29

angiotensin II rec	chemokine (C-C) re	angiotensin II rec	angiotensin II rec	oupl	II	angiotensin II rec	II	٠,	H	angiotensin II rec	interleukin-8 rece	G protein-coupled	MIP-1 alpha recept		angiotensin II rec
S15403	A45177	JC1104	JN0694	A30341	S44425	A42656	JH0621	JC2134	A48857	JQ1516	A23669	A39714	I49341	I39418	JC1194
N	~	N	N	N	N	N	7	7	N	N	N	N	N	(1)	~1
359	355	359	362	362	359	359	359	359	359	359	354	362	359	359	359
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25.4	25.3	24.8	24.8	24.6	24.6	24.6	24.6	24.6	24.5	24.3	24.3	24.0		23.9	23.7
••	472.5 25.3		463.5 24.8	460 24.6	10	ın			457.5 24.5						442.5 23.7

#### ALIGNMENTS

ESSULT 1  GROOGE  Fusin (LESTRA) - crab-eating macaque fusin (LESTRA) - crab-eating macaque fusin (LESTRA) - crab-eating macaque  C.Species and fascicularis (crab-eating macaque)  C.Species 11-Apr-1997 #sequence_revision 11-Apr-1997 #text_change 26-Aug-1999  C.Accession: G00048  A.Reference number: H00048  A.Accession: G00048  A.Accession: G00048  A.Accession: G00048  A.Accession: G00048  A.Accession: G00048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10048  A.Accession: G10	Query Match  90.0%; Score 1679.5; DB 2; Length 352; Best Local Similarity 90.1%; Pred. No. 5.3e-140; Matches 319; Conservative 17; Mismatches 13; Indels 5; Gaps 1;	6 VSIXTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGIVILVM 65	66 GYQKKLRSMTDKYRLHLSVADLLFVITLFFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125 	126 VLILAPISLDRYLAIVHATNSQRPRKLLABKAVYVGVMIPALLLIIPDFIFADVSQGDIS 185 	186 QGDDRYICDRLYPDSLWMVVPQFQHINVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 245 179 EADDRYICDRFYPNDLWVVPQFQHINVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 238	246 KTTVILILAFPACWLBYXVGISIDSFILLGVIKOGCDFBSIVHKWISITEALAFFHCCLN 305	306 PILYAFLGAKFKSSAQHALNSMSRGSSIKILSKGKRGGHSSVSTESESSSFHSS 359 
RESULT 1 GROUGHS fusin (LES C,Species: C,Daccessic R,Tatsumi,submitted A,Referenc A,Resterenc A,Residues A,Residues A,Residues C,Superfan	Oue Bes Mat	& a	දු දු	දු පු	\rac{4}{5}	දු පු	දි දි

RESULT 2 A45747

neuropeptide Y/peptide YY receptor Y3 - human NiAlternate names: fusin; HM89; leukocyte-derived seven-transmembrane receptor LESTR; rel C,Species: Homo sapiens (man) C,Date: 03-May-1994 #sequence revision 03-May-1894 #text change 05-Nov-1999 C;Accession: A45747; A53103; I53006; I59444; I69203; S32761

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A;Cross-references: DDBJ:AB003174; NID:g3798731; PIDN:BAA34045.1; PID:g3798732
C;Comment: This protein is important for lymphocyte trafficking to lymphoid organs.
C;Superfamily: vertebrate rhodopsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: JE0349
A; Molecule type: mRNA
A; Residues: 1-367 < TAM>
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A.Molecule type: mRNA
A.Residues: 1.352 < LOE>
A.Cross-references: EMBL:X71635; NID:g297099; PIDN:CAA50641.1; PID:g297100
A.Residues: 1.352 < LOE>
A.Cross-references: EMBL:X71635; NID:g297099; PIDN:CAA50641.1; PID:g297100
DNA.Cell Biol. 12, 465.471, Shine, J.; Selbie, L.A.
DNA.Cell Biol. 12, 465.471, Shine, J.; Selbie, L.A.
DNA.Cell Biol. 12, 465.471, Shine, J.; Selbie, L.A.
A.Residues: preliminary in translated from GB/EMBL/DDBJ
A.Accession: 15306
A.Accession: 15306
A.Accession: 15306
A.Molecule : preliminary; translated from GB/EMBL/DDBJ
A.Molecule : Dept. 47, 47.253, 1933
A.Tille: A proposed bovine neuropeptide Y (NPY) receptor CDNA clone, or its human homolocative in the pept. 47, 47.253, 1933
A.Tille: A proposed bovine neuropeptide Y (NPY) receptor CDNA clone, or its human homolocative preliminary; translated from GB/EMBL/DDBJ
A.Molecule type: mRNA
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A.Molecule type: 
R;Federsppiel, B.; Melhado, I.G.; Duncan, A.M.V.; Delaney, A.; Schappert, K.; Clark-Lewidenomics 16, 707-712, 1993
A;Title: Molecular cloning of the cDNA and chromosomal localization of the gene for a pu A;Reference number: A45747; MUID:93315164; PMID:8325644
A;Accession: A45747
A;Accession: A45747
A;Accession: A45747
A;Residues: 1-322 <FED>
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Cross-references: GB:M99293; NID:g292516; PIDN:AAA16617.1; PID:g292517
A;Accession: 269, 232-237, 1994
A;Title: Cloning of a human seven-transmembrane domain receptor, LESTR, that is highly e
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                                                                                                                                                                                                                                                                                                                                                                                      A; Accession: A53103
A; Molecule type: mR
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                                                                     299 PILYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSFHSS
306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
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Best Local Similarity 86.8%; Pred. No. 9.8e-136;
Matches 308; Conservative 26; Mismatches 15;
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Interferon-inducible protein 10 (IP-10) receptor - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Dacession: US0349
R;Tamaru, M.; Tominaga, Y.; Yatsunami, K.; Narumi, S.
Biochem. Biochem. Biophys. Rest. Commun. 251, 41-48, 1998
A;Title: Cloning of the murine interferon-inducible protein 10 (IP-10) receptor and: A;Reference number: JE0349; MUID:99009219; PMID:9790904

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.. Gaps Length 367; Indels Query Match 31.4%; Score 585.5; DB 2; Best Local Similarity 35.4%; Pred. No. 8.2e-44; Matches 123; Conservative 69; Mismatches 130;

OY 119 TUNIVSSVLILAFISLDRYLAIUHATNSQRPKLLABEKAUVUGUWIPALLLTIPDFIFAD 178  118 LUGFYSGIPFUMLMSIDRYLAIUHAFELRATILTYGUTSLATWSVANFASLEOFLFST 177  QY 179 VSQGDISQGDRYTCDRLYPDSLMMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHS 236  118 CYTERNHTY-CKTKVSLNSTTWKVLSSLEINLIGLVIPLGIMLFCYSMIRTLGHC 232  QY 237 KGHQKRKALKTTVILLAFFACWLPYVGISIDSFILLGVIRGCRFSIVHKWISITEA 296  1	RESULT 6 101231 interleukin-8 (),Species: 0ry (),Date: 31-Mar (),Chate: 31-Mar (),Checession: J A),Reference no A),Residues: Ly A),Residues: Ly A),Residues: Ly A),Residues: Ly A),Residues: Ly A),Residues: Ly A),Residues: Ly A),Residues: Ly A),Residues: Chara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A),Residues: Loara A	Db 136 Qy 192 Db 191 Qy 250 Db 251 Qy 310
OY 17 EVGSGDYD-SNKERCFRDENVHFNRIELPTIVFIIFLTGIVGNGLVILUVMGYOKKLRSMT 75  1	250 ILILAPPACKILPYYOISIDSFILIGOYIXQGCDFESIVHKWISITEALAFFHCCLNPILY 319  258 VIVAARAVCWIPPHLAVLUNDLABUGGGESHUDAKASYISGAGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGGG	us predicted kinase C) #status   th 360;  1s 13; Gaps   PTIYFIIFLTGIVGN 58     :   :   :   :       PPLYSLVFVFGLLGN 57   WYFGKPLCKAVHIIY 111

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            59 GLVILVMGYQKKIRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIY 118
                                                                                                                                                      119 TVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFAD 178
                                                                                                                                                                                                                                                                                                  179 VSQGDISQGDDRYICDRLYPD----SLWMVVFQFQHIMVGLILPGIVILSCYCIIISKL 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            294 TEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSK------GKRGGH 344
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RESULT 7
A55735
G protein-coupled receptor EB11 - mouse
C; Species: Mus musculus (house mouse)
C; Date: 07-Unl-1995 #sequence_revision 07-Unl-1995 #text_change 24-Nov-1999
C; Date: 07-Unl-1995 #sequence_revision 07-Unl-1995 #text_change 24-Nov-1999
C; Date: 07-Unl-1995 #sequence_revision 07-Unl-1995 #text_change 24-Nov-1999
C; Date: 07-Unl-1995 #sequence_revision 07-Unl-1995 #text_change 24-Nov-1999
C; Date: 07-Unl-1995 #sequence_revision 07-Unl-1995 #text_change 24-Nov-1999
R; Schweickart, V.L.; Raport, C.J.; Godiska, R.; Byers, M.G.; Eddy Jr., R.L.; Shows, T.B.
A; Title: Cloning of human and mouse EB11, a lymphoid-specific G-protein-coupled receptor A; Accession: A55735; MUID:95154835; PMID:7851893
A; Residues: Dreliminary
A; Molecule type: mRA
A; Residues: 1-378 < SCH>
A; Residues: 1-378 < SCH>
A; Residues: 1-378 < SCH>
A; Residues: 1-378 < SCH>
C; Superfamily: vertebrate rhodopsin
C; Superfamily: vertebrate rhodopsin
C; Keywords: G protein-coupled receptor
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$42.096
interleukin-8 receptor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 06-Jan-1995 #text_change 26-Aug-1999
C;Accession: $42.096
R;Gobl, A.E.; Wang, S.; Zhou, Y.; Oeberg, K.
Submitted to the EMBL Data Library, February 1994
A;Description: Molecular cloning of the rat IL8 receptor.
A;Reference number: $42.096
A;Accession: $42.096
A;Accession: $42.096
A;Status: preliminary
A;Molecule type: mRNA
A;Residus: 1-256 <-GOBA
A;Residus: 1-256 <-GOBA
A;Cross-references: EMBL:X77797
C;Superfamily: vertebrate thodopsin
C;Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            189 DRYICDRLYPDSLWMVVFQFQHIMVGLILFGIVILSCYCIIISKLSHSKGHQKRKALKTT 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             206 DILRCSLVSAQVEALITIQVAQMVFGFLVPMLAMSFCYLIIIRTLLQARNFERNKAIKVI 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71 LRSMIDKYRLHLSVADLLFVIILPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVLILA 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   29 IDDYIGENTIVDYTLYESVCFKKDVRNFKAMFLPLMYSVICFVGLLGNGLVILTYIYFKR 88
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 SDNYSSEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKK 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         309 YAFLGAKFKSSAQHALNSMSRGSS--LKILSKGKRGGHSSVSTESESSSFHS 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7:
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63 GNSLVMLVILYSRSTCSVTDVXLLNLAIADLLFATTLPIWAASKVHGWTFGTPLCKVVSL 122
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                                                                                                                                                                                                                    9 YISDNYSEEVGSGDYDS------NKEPCFRDENVHFNRIFLPIIYFIIFLTGIV
                                                                                                                                   57 GNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHI
                                                                                                                                                                                                                                                                    177 ADVSQGDISQGDDRYICDRLYPD----SLWMVVFQFQHIMVGLILPGIVILSCYCIIIS
                                                                                                                                                                                                                                                                                       117 IYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIF
                                                                                    4 FTWENYSYEDFFGDFSNYSYSTDLPPTLLDSAPC-RSESLETNSYVLITYILVFLLSLL
                                   Gaps
                                   39;
 Length 358;
Query Match 29.2%; Score 544.5; DB 2; Length 3 Best Local Similarity 34.7%; Pred. No. 3.2e-40; Matches 128; Conservative 70; Mismatches 132; Indels
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12 DNYS-EEVGSGDYD-----SNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGN

Query Match 29.3%; Score 547.5; DB 2; Length 356; Best Local Similarity 34.8%; Pred. No. 1.7e-40; Matches 129; Conservative 67; Mismatches 124; Indels 51.

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A; Molecule type: mRNA
A; Molecule type: MRNA
A; Residues: 1-155 ARAP-
A; Cross-references: GB:U20350; NID:g665580; FIDN:AAA91783.1; PID:g665581
A; Experimental source: peripheral blood mononuclear cell
C; Comment: This protein is a cell-surface receptor which recognizes extracellular signal:
C; Comment: This protein is a cell-surface receptor which recognizes extracellular signal:
C; Comment: This protein is a cell-surface receptor which recognizes extracellular signal:
C; Comment: This protein is a cell-surface receptor many immune and homeostatic responses, and
C; Genetics:
A; Map position: 3pter-p21
C; Superfamily: vertebrate rhodopsin
C; Keywords: G protein-coupled receptor; lymphokine; transmembrane #status predicted <TM2>
F; 56-88 Domain: transmembrane #status predicted <TM3>
F; 66-80 Domain: transmembrane #status predicted <TM3>
F; 197-217 Domain: transmembrane #status predicted <TM5>
F; 197-217 Domain: transmembrane #status predicted <TM6>
F; 230-254 Domain: transmembrane #status predicted <TM6>
F; 275-296 Domain: transmembrane #status predicted <TM6>
F; 275-296 Domain: transmembrane #status predicted <TM7>
F; 275-296 Domain: transmembrane #status predicted <TM7>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12 DNYSEEVGSG-DYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKK
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
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Best Local Similarity 33.1%
Matches 120; Conservative
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Gprotein-coupled receptor CKR-L3 - human
Cjspeides: Homo sapiens (man)
Cjspeides: Homo sapiens (man)
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Cjspeides: Homo sapiens (man)
Cjspeides: Homo sapiens (man)
Cjadallos, A.; Varona, R.; Gutlerrez, J.; Lind, P.; Marquez, G.
Rjaballos, A.; Varona, R.; Gutlerrez, J.; Lind, P.; Marquez, G.
Bjochen. Biophys. Res. Commun. 227, 846-853, 1996
A;Title: Molecular cloning and RNA expression of two new human chemokine receptor-A;Reference number: JC5068
A;Accession: JC5068
A;Accession: JC5068
A;Molecule type: DNA
A;Residues: 1-369 cZAB.
A;Cross-references: ENBL:Z79784; NID:g1668737; PIDN:CAB02144.1; PID:g1668738
A;Cross-references: ENBL:Z79784; NID:g1668737; PIDN:CAB02144.1; PID:g1668738
A;Cross-references: ENBL:Z79784; NID:g1668737; GRC-CY4
A;Cross-references: GDB:5370639; OMIN:601835
A;Monent: This protein belongs to the family of alpha chemokine receptors.
C;Goment: This protein belongs to the family of alpha chemokine receptors.
C;Goment: This protein belongs to the family of alpha chemokine receptors.
C;Goment: This protein belongs to the family of alpha chemokine receptors.
C;Goment: This protein belongs to the family of alpha chemokine factors of min.
C;Keywords: Gprotein-coupled receptor; transmembrane #status predicted <TM2>
F;76-180/Domain: transmembrane #status predicted <TM3>
F;16-180/Domain: transmembrane #status predicted <TM3>
F;16-180/Domain: transmembrane #status predicted <TM5>
F;212-233/Domain: transmembrane #status predicted <TM6>
F;292-315/Domain: transmembrane #status predicted <TM6>
F;292-215/Domain: transmembrane #status predicted <TM6>
F;292-315/Domain: transmembrane #status predicted <TM6>
F;292-315/Domain: transmembrane #status predicted <TM6>
F;292-215/Domain: transmembrane #status predicted <TM6>
F;292-215/Domain: transmembrane #status predicted <TM6>
F;292-216/Domain: transmembrane #status predicted <TM6>
F;292-216/Domain: transmembrane #status predicted <TM6>
F;779-774
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186 TÓGSD--VCEPKÝQTVSEPIRWKLLMLGLELLFGFFIPLMFMIFCYTFIVKTLVQAQNSK 243
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Matches 124; Conservative
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174 247 232 307 291 356 344

20 61

32;

Length 355; Indels

28.5%; Score 533; DB 2; L 33.1%; Pred. No. 3.2e-39; live 65; Mismatches 146;

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A,Cross-references: EMBL:X90862; NID:gl167851; PIDN:CAA62372.1; PID:gl167852
A,Experimental source: thymus
C,Gentelics
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                                                                               Cispecies: Mus musculus (house mouse)
Cispecies: Mus musculus (house mouse)
Cispecies: Mus musculus (house mouse)
Cispecies: Musculus (house mouse)
Cispecies: 08-Mar-1996 #sequence_revision 19-Apr-1996 #text_change 20-Jun-2000
Cispecies: 08-Mar-1996 #sequence_revision 19-Apr-1996 #text_change 20-Jun-2000
Cispecies: 07-4887
Richard A.E.I.; Wells, T.N.C.; Power, C.A.
Biochem. Biophys. Res. Commun. 218, 337-343, 1996
A;Title: Molecular cloning of murine CC CKR-4 and high affinity binding of CA;Reference number: JC4587; MUID:96136324; PMID:8573157
A;Accession: JC4587
A;Accession: JC4587
A;Accession: JC4587
A;Accession: JC4587
A;Residues: 1-360 <HOO>
chemokine (C-C) receptor 4
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Orghan G protein-coupled receptor - human

NyAlternate names: V28 protein

Cjspecies: Homo sapiens (man)

Cjacession: JC4304

Rjacession: JC4304

Rjaport, C.J.; Schweickart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.

Rjaport, C.J.; Showelckart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.

Rjaport, C.J.; Showelckart, V.L.; Eddy Jr., R.L.; Shows, T.B.; Gray, P.W.

A;Title: The orphan G-protein-coupled receptor-encoding gene V28 is closely related (A;Reference number: JC4304; MUID:96011651; PMID:7590284

347

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Search completed: May 17, 2004, 22:19:54 Job time : 45 secs

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K; Barella, L.; Loetscher, M.; Tobler, A.; Baggiolini, M.; Moser, B.
Biochem. J. 309, 773-779, 1955
A; Picture: Sequence variation of a novel heptahelical leucocyte receptor through alternation A; Reference number: S56162; MUID:95366951; PMID:7639692
A; Accession: S56162
A; Accession: S56162
A; Accession: S56162
A; A; Catus: preliminary; nucleic acid sequence not shown
A; Residues: 1-327 < RARS
A; Residues: 1-327 < RARS
  #status predicted #status predicted
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                                                                                                                                                                                                                              4 FKAVFVPVAYSLIFILGVIGNVLVLVILERHRQTRSSTETFLFHLAVADLLLVFILPFAV 63
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          261 PYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFK 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Species: Homo sapiens (man)
Date: 27-Oct-1995 #sequence_revision 03-Nov-1995 #text_change 08-Oct-1999
Accession: S56162
                                                                                                                                                                                           23 YDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGYQKKLRSMTDKYRLHL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A;Cross-references: EMBL:X68829; NID:g840783; PIDN:CAA48723.1; PID:g840784
C;Superfamily: vertebrate rhodopsin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5; Gaps
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F;145/Binding site: phosphate (Ser) (covalent) (by protein kinase C) F;321/Binding site: phosphate (Thr) (covalent) (by protein kinase C)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 28.2%; Score 526.5; DB 2; Length 327; Best Local Similarity 34.6%; Pred. No. 1.1e-38; Matches 111; Conservative 66; Mismatches 139; Indels 5.
                                                                                  Length 360,
                                                                                  Query Match 28.4%; Score 530; DB 2; Length 36
Best Local Similarity 36.4%; Pred. No. 6e-39;
Matches 108; Conservative 62; Mismatches 119; Indels
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303 LCQLFPSWRRSSLS-ESENAT 322
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GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

May 17, 2004, 16:16:00; Search time 27 Seconds (without alignments) 692.340 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS.......KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

141681 segs, 52070155 residues Searched:

141681 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt\_42:\* Database : Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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SUMMARIES	f	ID	CCR4 MOUSE		CCR4 PAPAN	CCR4_MACFA	CCR4 HUMAN	CCR4 MACMU	CCR4 CERTO		CCR4_BOVIN	CCR4 SHEEP	CCR3 HUMAN	CCR3_MOUSE	CKR4 HUMAN	IL8B_RAT	IL8A_RABIT	CKR7_MOUSE	IL8B CANFA	IL8B RABIT	IL8B HUMAN	IL8B_PANTR	IL8B MACMU	IL8B_GORGO	CKR7_HUMAN				C3X1 HUMAN	CKR6 MOUSE	CKR4 MOUSE	CKD6 MOUSE	IL8A_GORGO	IL8A_PANTR	IL8B_MOUSE
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CCRS_HUMAN IL8A_HUMAN	CCR5 MOUSE	CKR8 MOUSE	CCR6_HUMAN CCR6_PANTR	CCR5_RAT	CCR6 CERAE	CCR6_MACNE	C3X1_RAT
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522.5	517.5	511.5	510 510	508.5	505.5	504	501
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## ALIGNMENTS

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NEUTICE (FEB 1997) COLOUR EMBANGED CARGAGES.

NEUTICE CONTROL N. (ISOCRM CXCR4-B).

SEQUENCE FROW N.A. (ISOCRM CXCR4-B).

Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

KIAUSHER FR.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

A Altschul S.F., Zeeberg B., Buetcw K.H., Schaefer C.F., Biat N.K.,

A Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,

Detrohench L., Marusina K., Farmer A.A., Rubin G.M., Hong E.,

A Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Haieh F.,

Distribution M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.B., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Rosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Glubs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gabbs R.A.,

Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

Schnerch A., Schenbur J.B., More B.D., Jones A.G.,

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimwood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Grimmood J., Schmutz J., Marra M.A.;

Rodriguez A.C., Griman J., Marra M.A.;

Rodriguez 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=98295994; PubMed=9634237;
Tachibana K., Hirota S., Iizasa H., Yoshida H., Kawabata K.,
Kataoka Y., Kitamura Y., Matsushima K., Yoshida N., Nishikawa S.-I.,
Kishimoto T., Nagasawa T.;
"The chemokine receptor CXCR4 is essential for vascularization of the
gastrointestinal tract.";
Nature 393:591-594(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ALTERNATIVE SPLICING.
MEDLINE=99095114; PubMed=9879064;

Frodl R., Gierschik P., Moepps B.;
Genomic organization and expression of the CXCR4 gene in mouse and man: absence of a splice variant corresponding to mouse CXCR4-B in human tissues.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=98295995; PubMed=9634218; Zou Y.-R., Kottman D.R.; Zou Y.-R., Kottmann A.H., Kuroda M., Taniuchi I., Littman D.R.; Prnction of the chemokine receptor CXCR4 in haematopoiesis and in cerebellar development."; Nature 393:595-599(1998).
J. Immunol. 158:3561-3504(12)...
[6]
SEQUENCE FROM N.A. (ISOFORM CXCR4-B).
STRAIN-C57BL/6; TISSUB=Thymus;
Suzuki G., Nakata Y., Uzawa A., Shirasawa I., Saito I., Mita
Submitted (FEB-1997) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    J. Recept. Signal Transduct. Res. 18:321-344(1998).
[9]
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C. I-ATERNATIVE PRODUCTS:

Name-CXCR-18; Synonyma-1858TR-8;

Name-CXCR-18; Synonyma-1858TR-8;

Name-CXCR-18; Synonyma-1858TR-8;

Name-CXCR-18; Synonyma-1858TR-8;

Name-CXCR-18; Synonyma-1858TR-8;

I sold-270658-2; Sequence=0189101891;

I sold-270658-2; Sequence=0189101891;

I sold-270658-2; Sequence=0189101891;

I sold-270658-2; Sequence=0189101891;

I sold-270658-2; Sequence=0189101891;

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I sold-270658-2; Sequence=0189101891;

I sold-27068-2; Sequence=0189101891;

I sold-27068-2; Sequence=0189101891;

I sold-27068-2; Sequence=0189101891;

I sold-27068-2; Sequence=0189101891;

I sold-27068-2; Sequence=0189101891;

I sold-27068-2; Sequence=0189101891;

I sold-27068-2; Including the stonested with subsequent differentiation. Detected in stee with hammopietic potential expression is retained in the foregut and later in a subset of foregut and the lung epithelium (12.5 dpc). In neutronal steel of sequences in the mesode-mand the lung epithelium (12.5 dpc). In neutronal steel of sequences in the metal cord (or basal) and the delinitive endedem-Name and the subset of foregut and the lungs epithelium (12.5 dpc). In neutronal steel of sequences in the sequence of the spinal cord (or basal) and the sequence of the spinal cord (or basal) and the sequences of the spinal cord (or basal) and sequences of the spinal cord (or basal) and sequences of the spinal cord (or basal) and sequences of the spinal cord or sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequences of the sequenc

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ö 120 180 180 240 241 KRKALKTYVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300 181 GGDISGGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ 240 KRKALKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFF 300 9 9 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 HCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 1 MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGL 61 VILVMGYQKKLRSMTDKYRLHLSVADLLFVITLFFWAVDAWADWYFGKFLCKAVHIIYTV NLYSSVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVS QGDISQGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQ 1 MEPISVSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHPNRIFLPTIYFIIFLTGIVGNGL 61 VILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTV Gaps ö Length 359; Indels Query Match

100.0%; Score 1867; DB 1;
Best Local Similarity 100.0%; Pred. No. 2.2e-115;
Matches 359; Conservative 0; Mismatches 0; 181 241 301 121 301 ద È g ò 셤 ઠ 쉱 셤 ठे

01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
115-MAR-2004 (Rel. 43, Last annotation update)
12-MAR-2004 (Rel. 43, Last annotation update)
6-X-C chemokine receptor type 4 (CXC-84) (CXCR-4) (Stromal cell-derived factor 1 receptor) (SDF-1 receptor) (Fusin) (Leukocyte-derived seven transmembrane domain receptor) (LESTR). STANDARD; 

349 AA

Rattus norvegicus (Rat) CXCR4 OR CMKAR4.

Eukaryota; Merazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus. NCBI\_TaxID=10116;

SEQUENCE FROM N.A.

STRAIN=Wistar; TISSUS-Spleen;
A Harrison Jr.K., Salafranca M.N.;
Harrison Jr.K., Salafranca M.N.;
Harrison Jr.K., Salafranca M.N.;
Anceular cloning of rat CXCR4";
Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases.

List of the CXC Chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level:

Involved in B-cell lymphopoissis, bone-marrow wyelopoiesis and in cardiac ventricular septum formation. Plays also an essential role in vascularization of the gastrointestinal tract, probably by requiation, preventing premacure migration of processes in endothelial cells. Involved in cerebellar neuronal layer formation, preventing premacure migration of proliferating granule cells from the external granule layer inwards. In the CNS, could mediate hippocampal-neuron survival (By similarity).

Listuic SPECIFICITY: Expressed in neurons and in astrocytes.

Listing SPECIFICITY: Expressed in neurons and in astrocytes.

List SIMILARITY: Belongs to family 1 of G-protein coupled receptors.

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EMBL; U90610; AABS0408.1; InterPro; IPRO00276; GPCR\_Rhodpsn.
PRO001, 7tm 1; 1.
PRINTS; PR00237; GPCRHODOPSN.
PROSITE; PS0237; GPROTEIN RECEP F1 1; 1.
PROSITE; PS50262; GPROTEIN\_RECEP\_F1\_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
DOMAIN (POTENTIAL) (POTENTIAL) 5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
7 (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL). SULFATION (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL) 1 (POTENTIAL). CYTOPLASMIC (POTENTIAL). 2 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 4 (POTENTIAL). EXTRACELLULAR (POTENTIAL) (POTENTIAL) BY SIMILARITY. SULFATION (POTENTIAL) 3 (POTENTIAL) CYTOPLASMIC ( 349 AA; 39334 MW; 37 61 77 77 108 1130 1152 1173 218 TRANSMEM DOMAIN TRANSMEM DISULFID MOD RES MOD RES CARBOHYD DOMAIN TRANSMEM DOMAIN DOMAIN TRANSMEM DOMAIN TRANSMEM DOMAIN **TRANSMEM** SEQUENCE **PRANSMEM** DOMAIN 

Gaps 5, 93.4%; Score 1744.5; DB 1; Length 349; 95.5%; Pred. No. 2.2e-107; ive 4; Mismatches 7; Indels 5; Query Match Best Local Similarity 95.5 Matches 338; Conservative

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185 245 KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 9 1 MEIYTSDNYSEEVGSGDYDSNKEPCFRDENENFNRIFLPTIYFIIFLTGIVGNGLVILVM 61 GYQKKLRSMIDKYRLHISVADILFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 126 VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 176 QGDGRYICDRLYPDSLMMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL GYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 186 OGDDRYICDRLYPDSLWMVVFOFOHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 306 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 246 99 ਨੇ 셤 g ð 셤 ò 셤 à 셤 à В ò

STANDARD; CCR4 PAPAN P56491; 15-JUL-1998 ( RESULT 3 CCR4\_PAPAN

15-UUL-1998 (Rel. 36, Created)
15-UUL-1998 (Rel. 36, Last sequence update)
16-COT-2010 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXCR-44) (Stromal cell-derived factor 1 receptor) (Fusin).

(SDF-1 receptor)

Papio anubis (Olive baboon).

Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae;

Cercopithecinae; Papio.

NCBI\_TaxID=9555; OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE OCCOORDED DATE OF THE

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                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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InterPro; IPR000276; GPCR_Rhodpsn.

Pfam; PP00001; 7tm 1; 1.

PRINTS; PR00237; GPCRHODDPSN.

PROSITE; PS00237; GPROTEIN RECEP_F1_2; 1.

PROSITE; PS50262; GPROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.

G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
                                 Benton P.A., Timanus D.K., Shearer M.H., Lee D.R., Kennedy R.C.; Submitted (NOV-1997) to the EMBL/GenBank/DBJ datebases.
-1- FUNCTION: Receptor for the C.X.C chemokine SDF-1. Transduces a signal by increasing the intracellular calcium ions level.
- SUBCELDIULAR LOCATION: Integral membrane protein.
-1- FTM: Sulfated (By similarity).
-1- FTM: Sulfated (By similarity).
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CYTOPLASNIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
7 (POTENTIAL).
SULFAIION (POTENTIAL).
N.LINKED (GLUNAC. .) (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLUIAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLUIAR (POTENTIAL).
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities a license agreement (See http://www.isb-sib.ch/announce) or send an email to license@isb-sib.ch).
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Tatabashi H.;
Tatabashi H.;
Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases.
Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases.
In the Common to the EMBL/GenBank Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common to the Common t
                                                                                                            15-UTL-1998 (Rel. 36, Created)
15-UTL-1998 (Rel. 36, Last sequence update)
16-CCT-2001 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR)
                                                                                                                                                                                                                                                                                                                                                                                                                                   Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).

Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia; Butheria, Primates; Catarrhini, Cercopithecidae;
Cercopithecinae; Macaca.
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352
STANDARD;
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Matches 319; Conserv
MACFA
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KTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305
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PRT; 352 AA.
P30991; 060835; P56438; Q9UKN2;
P30991; 060835; P56438; Q9UKN2;
O1-JUL-1993 (Rel. 26, Last sequence update)
O1-JUL-1993 (Rel. 43, Last annotation update)
15-MAR-2004 (Rel. 43, Last annotation update)
C-X-C chemokine receptor type 4 (CXCR-4) (Stromal cell-CX-C chemokine receptor) (SDF-1 receptor) (Fusin) (Leukocyte-derived derived factor 1 receptor) (SDF-1 receptor) (Fusin) (Leukocyte-derived seven transmembrane domain receptor) (LESTR) (LCR1) (NPYRL)
                                                                                                                                                                                                                            239 KTTVILILAFFACWLPYYIGISIDSFILLEIIKQGCEFENTVHKWISITBALGFFHCCLN
                     VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS
                                              VILLAFISLDRYLAIVHATNSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFASV----S
                                                                                                             186 QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                       "Cloning of a human seven-transmembrane domain receptor, LESTR, that is highly expressed in leukocytes.";
J. Biol. Chem. 269:232-237(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A. (ISOFORM 1).
SEQUENCE FROM N.A. (ISOFORM 1).
SECUES=Human; TISSUE=Fetal brain;
MEDLINE=94052813; PubMed=8234909;
Jazin E.B., Yoo H., Blomqvist A.G., Yee F., Weng G., Walker M.W.,
Salon J., Larhammar D., Wahlestedt C.R.;
A proposed bovine neuropeptide Y (NPY) receptor cDNA clone, or its
human homologue, confers neither NPY binding sites nor NPY
responiveness on transfected cells.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIES=Human, TISSUE=Lung;
MEDLINE=93319629; PubMed=8329116;
Herzog H., Hort Y.J., Shine J., Selbie L.A.;
"Molecular cloning, characterization, and localization of the human homolog to the reported bovine NPY Y3 receptor: lack of NPY binding and activation.";
                                                                                                                                                                                                                                                                                              359
                                                                                                                                                                                                                                                                                                                    Pan troglodytes (Chimpanzee).
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalla, Butheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPECIES-Human, TISSUE-Fetal spleen; MEDLINES-93315(4; PubMed=3325(4); Federsppiel B., Melhado I.G., Duncan A.M., Delaney A.D., Schappert K.T., Clark-Lewis I., Jirik F.R.; "Molecular cloning of the CDNA and chromosomal localization of the form for a putative seven-transmembrane segment (7-TMS) receptor isolated from human spleen."
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Loetscher M., Geiser T., O'Reilly T., Zwahlen R., Baggiolini M.,
                                                                                                                                                                                                                                                                                                PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS
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"Genomic organization and functional characterization of the chemokine receptor CXCR4, a major entry co-receptor for human immunodeficiency virus type 1.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wegner S.A., Ehrenberg P.K., Chang G., Dayhoff D.E., Sleeker A.L.,
Michael N.L.,
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MEDLINE=99384048; PubMed=10452968;
Gupta S.K., Pillarisetti K.;
"CXCR4-Lo: molecular cloning and functional expression of a novel
                                                                                          Nomura H., Nielsen B.W., Matsushima K.; "Molecular and putative "Molecular cloning of cDNAs encoding a LD78 receptor and putative leukocyte chemicatic peptide receptors."; Int. Immunol. 5:1239-1249(1993).
                                                                                                                                                                                                                                                                    HIV-1
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SPECIES-Human, TISSUB-Peripheral blood lymphocytes;
MEDLINE-99095114; PubMed-9879064;
Frodl R., Glerschik P., Moepps B.;
"Genomic organization and expression of the CXCR4 gene in mouse man: absence of a splice variant corresponding to mouse CXCR4-B. human tissues.";
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SPECIES=Human, TISSUE=Lung;
Warren C.N., Aronstam R.S., Sharma S.V.;
"CDNA clones of human proteins involved in signal transduction
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                                                                                                                                                                                                                                                                    (ISOFORM 1), AND CHARACTERIZATION OF
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                                                                                                                                                                                                                                                                                                                                                           MEDLINE-96217947; PubMed=8629022;
Feng Y., Broder C.C., Kennedy P.E., Berger B.A.;
"HIV-1 entry cofactor: functional cDNA cloning of
transmembrane, G protein-coupled receptor.";
Science 272:872-877(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AIDS Res. Hum. Retroviruses 15:1201-1208(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    virus type 1.";
J. Biol. Chem. 273:4754-4760(1998).
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SPECIES=Human; TISSUE=Colon;
MEDLINE=22388257; PubMed=12477932;
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MEDLINE=99408510; PubMed=10480633;
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SEQUENCE FROM N.A. (ISOFORM 1).
MEDLINE=94092629; Pubmed=7505609;
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J. Immunol. 163:2368-2372(1999).
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                                                                                                                                                                                                                                                                                                        CORECEPTOR FUNCTION.
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Hoxie J.A.;

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Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

Rlausrer R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,

Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Hopkins R.F., Jordan H., Mores T., Max S.I., Wang J., Hsieh F.,

Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

Ratchero M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

Bosak S.A., McDwan P.J., McKernan K.J., Malek J.A., Gabbs R.A.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.H.,

Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.H.,

Richards J., Helton E., Ketteman M., Madan A., Rodrigues S.,

Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Rhiting M., Touchman J.W., Schmutz J., Myers R.M.,

Butterfield Y.S.N., Krzywinski M.I., Schmutz J., Myers R.M.,

Butterfield X.S.N., Krzywinski M.I., Skalska U., Smailus D.B.,

Beneration and initial analysis of more than 15,000 full-length

Human and mouse cDNA sequences "A. More Man."
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MEDLINE=97083584; PubMed=8929542;
Endres M.J., Clapham P.R., Marsh M., Ahuja M., Turner J.D.,
McKnight A., Thomas J.F., Stoebenau-Haggarty B., Choe S., Vance P.J.,
Wells T.N.C., Power C.A., Sutterwala S.S., Doms R.W., Landau N.R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bleul C.C., Farzan M., Choe H., Parolin C., Clark-Lewis I.,
Sodroski J., Springer T.A.;
"The lymphocyte chemoattractant SDF-1 is a ligand for LESTR/fusin and
Blocks HIV-1 entry.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Lapham C.K., Ouyang J., Chandrasekhar B., Nguyen N.Y., Dimitrov D.S.,
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MEDLINE=96351078; Pahara A., Bachelarie F., Bassia C., Virelizier J.-L.,
Arenzana-Seisdedos F., Schwartz O., Heard J.-M., Clark-Lewis I.,
Legler D.F., Loetscher M., Baggiolini M., Moser B.;
The CXC chemokine SDF-1 is the ligand for LESTR/fusin and prevents infection by T-cell-line-adapted HIV-1.";
Nature 382:833-835(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=99189752, PubMed=10089882, Farzan M., Mirzabekov T., Kolchinsky P., Wyatt R., Cayabyab M., Gerard N.P., Gerard C., Sodroski J., Choe H.; "Tyrosine sulfation of the amino terminus of CCRS facilitates HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Oberlin E., Amara A., Bachelerie F., Bessia C., Virelizier J.-L., Arenaran-Seisdedook F., Schwartz O., Heard J.-M., Clark-Lewis I., Legler D.F., Loetscher M., Baggiolini M., Moser B.; Nature 384:288-288(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEGÜENCE FROM N.A.
SPECIES-P.troglodytes;
MEDLINE=98090115; PubMed=9430250;
Pretet J.-L., Zerbib A.C., Girard M., Guillet J.-G., Butor C.;
"Chimpanzee CXRA and CCR5 act as coreceptors for HIV type 1.";
AIDS Res. Hum. Retroviruses 13:1583-1587(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CHARACTERIZATION OF ITS HIV-1 CORECEPTOR FUNCTION.
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Science 274:602-605(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nature 382:829-833(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry.";
Cell 96:667-676(1999)
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                                                                    6 VSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
                                                                                       4 ISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVM
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MEDLINE=97213934; PubMed=9060623;
Chen Z., Zhou P., Ho D.D., Landau N.R., Marx P.A.;
Genetically divergent strains of simian immunodeficiency virus use "CER5 as a coreceptor for entry.";
J. Virol. 71:2705-2714(1997).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     CCR4 MACMU STANDARD; PRT; 352 AA.

CCR4 MACMU O0745; O46428;
15-UTL-1998 (Rel. 36, Last sequence update)
15-UTL-1998 (Rel. 36, Last sequence update)
16-COT-2001 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Edinger A.D., Amedee A., Miller K., Doranz B.J., Endres M., Sharron M., Samson M., Lu Z.-H., Clements J.E., Murphey-Corb M., Peiper S.C., Parmentier M., Broder C.C., Doms R.W.; "Differential utilization of CRS Amarcrophage and T cell tropic simian immunodeficiency virus strains."; Proc. Natl. Acad. Sci. U.S.A. 94:4005-4010(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Cercopithecidae,
Cercopithecinae, Macaca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDILINES-9825293; PubMed=9591719;
MEDILINES-9825293; PubMed=9591719;
Prefet J.-L., Guillet J.-G., Bucor C.;
Now widespread CXCR4 allele in rhesus macaques does not predict subspecies or clinical evolution.";
ALDS Res. Hum. Retroviruses 14:639-641 (1998).
-! FUNCTION: Receptor for the C-X-C chemckine SDF-1. Transduces signal by increasing the intracellular calcium ions level.
                                   ..
..
 Length 352;
                                   11; Indels
Score 1678.5; DB 1;
Pred. No. 4.5e-103;
19; Mismatches 11;
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MEDLINE=97268687; PubMed=9108095;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Macaca mulatta (Rhesus macaque).
   89.9%;
Query Match
Best Local Similarity 90.11
Matches 319, Conservative
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                                     This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the FNBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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PRINTS; PRO0237; GFCRRHODOPSN.

PROSITE; PS00237; G PROTEIN RECEP FI 1; 1.

PROSITE; PS50262; G PROTEIN RECEP FI 2; 1.

G-protein couled receptor; Transmembrane; Glycoprotein; Sulfation.

DOMAIN 39 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -!- SUBCELLULAR LOCATION: Integral membrane protein.
-!- PTM: Sulfated (By similarity).
-!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                 7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
SULFATION (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
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D -> V (IN REF. 2 AND 3).
S -> N (IN REF. 2).
EC415E4820699G3F CRC64;
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CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
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InterPro, IPR000276, GPCR_Rhodpsn.
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EMBL; U93311; AAB54116.1; -.
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Matches 319; Conservative
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352 AA;
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66 GYQKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS 125
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InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm 1; 1.
PRINTS; PR00237; GPCRHODDPSN.
PROSITE; PS00237; GPCRIEIN RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.
                                                                                                                                      Cercocebus torquatus atys (Red-crowned mangabey) (Sooty mangabey).

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
mamalla; Eutheria; Primates; Catarrhini; Cercopithecidae;
Cercopithecinae; Cercocebus.
                                  15-DEC-1998 (Rel. 37, Created)
15-DEC-1998 (Rel. 37, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR).
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N-LINKED (GLCNAC. . .) (POTENTIAL)
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EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
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Best Local Similarity 89.5%
Matches 317; Conservative
   STANDARD;
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352 AA;
CCR4 CERTO
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VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS 185
                                                                                                                                       KITVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN
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                                                                                                                                                                                                                               QGDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=99399239; PubMed=10470253; Kevaca E.M., Baxter G.D., Robinson W.F.; Kevaca E.M., Baxter G.D., Robinson W.F.; Card. C. type chemokines."; Arch. Virol. 144:273-285 (1999). Arch. Virol. 144:273-285 (1999). Submitted B. Transduces a signal by increasing the intracellular calcium ions level. signal by increasing the intracellular calcium ions level. -- **Subcellular** Location**. Integral membrane protein. -- ***PIMILARITY** Belongs to family 1 of G-protein coupled receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CCR4_FELCA STANDARD; PRT; 353 AA.

564598, 002700; PT9172;
15-UTL-1998 (Rel. 36, Last sequence update)
15-UTL-1998 (Rel. 36, Last annotation update)
25-FEB-2003 (Rel. 41, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
(Stromal cell-derived factor 1 receptor) (Fusin) (LESTR).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Felis silvestris catus (Cat).
Eukaryota, Metazoa; Chordata; Craniata, Vertebrata; Euteleostomi;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

BEDLINE=97404646; PubMed=9261358;
Willett B.J., Picard L., Hosie M.J., Turner J.D., Adema K.,
Clapham P.R.;
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Lerner D.L., Elder J.H.;
Submitted (MAR-1997) to the EMBL/GenBank/DDBJ databases
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Submitted (DEC-1996) to the EMBL/GenBank/DDBJ databases
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J. Virol. 71:6407-6415(1997).
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LOR FE6458
DAC P56458
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REMBL; AJ009816; CAA08839.1; -.

R Interpro: IPPRO0276; GPCR\_Rhodpsn.

R PRINTS; PR00237; GPCRRHODOPSN.

PROSITE; PS00237; GPROTEIN RECEP\_F1\_1; 1.

R PROSITE; PS002637; GPROTEIN RECEP\_F1\_2; 1.

R G-protein coupled receptor; Transmembrane; Glycoprotein; Sulfation.

TRANSMEM 41 64 1 (POTENTIAL).

TRANSMEM 81 100 2 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 3 (POTENTIAL).

TRANSMEM 112 133 4 (POTENTIAL).

TRANSMEM 112 133 4 (POTENTIAL).

TRANSMEM 12 133 4 (POTENTIAL).

TRANSMEM 12 133 5 (POTENTIAL).

TRANSMEM 15 6 (POTENTIAL).

TRANSMEM 15 6 (POTENTIAL).

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TRANSMEM 15 6 (POTENTIAL).

TRANSMEM 15 17 201 EXTRACELLULAR (POTENTIAL).

4 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 5 (POTENTIAL). CYTOPLASMIC (POTENTIAL).

TRANSMEM DOMAIN TRANSMEM DOMAIN TRANSMEM CARBOHYD DISULFID

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      67 YOKKLRSMIDKYRLHLSVADILLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66 YQKKLRSMIDKYRLHLSVADILFVLTLPFWAVDAVANWYFGKFLCKAVHVIYTVNLYSSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247 TTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      241 TTVILLLAPFACWLPYYIGISIDSFILLEIIKQGCEFESTVHKWISITEALAFFHCCLNP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8 IYTSDNYSE-EVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         127 LILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         187 GDDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALK
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01-MAY-1992 (Rel. 22, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
01-MAY-2003 (Rel. 41, Last sequence update)
02-FEB-2003 (Rel. 41, Last annotation update)
C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor)
C-X-C chemokine receptor 1 receptor) (Rusin) (Leukocyte-derived (Stromal cell-derived factor 1 receptor) (LESTR) (LCR1).
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Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
SULPATION (POTENTIAL).
N-LINKED (GLUNAC. . .) (POTENTIAL).
BY SIMILARITY.
0 -> H (IN REF. 3).
C -> E (IN REF. 3).
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) -> H (IN REF. 3).
) -> E (IN REF. 3).
EA2BD46068A6C05B CRC64;
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89.0%; Pred. No. 9.4e-101;
iive 18; Mismatches 15;
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AC P25930;
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CONFLICT
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license also removed. Usage by and for commercial or send an email to license@lib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                     A BEDLINE=94052833; PubMed=824909;
A Jazin E.E., Yoo H., Blomqvist G., Yee F., Weng G., Walker M.W.,
A Salon U., Larhammar D., Wahlestedt C.R.;
I "A proposed bovine neuropepide Y (NPY) receptor cDNA clone, or its
human homologue, confers neither NPY binding sites nor NPY
responsiveness on transfected cells.";
Regul. Pept. 47:247-258(1993).
C --- FUNCTION: Receptor for the C-X-C chemokine SDF-1. Transduces a
signal by increasing the intracellular calcium ions level.
C --- SUBCELLULAR LOCATION: Integral membrane protein.
C --- TISSUB SPECIFICITY: Brain, heart, Kidney, lung and liver.
C --- FIFT SUBJECTIVITY: Belongs to family 1 of G-protein coupled receptors.
C --- CAUTION: Was originally (Ref.1) thought to be a receptor for neuropeptide Y type 3 (NPY3-R).
                                                                                                                MEDLINE=92100053; PubMed=1661837; RinHand J., Xin W., Sweetnam P., Saijoh K., Nestler E.J., Duman R.S.; Radhland J., Xin W., Sweetnam P., Saijoh K., Nestler E.J., Duman R.S.; "Sequence and expression of a neuropeptide Y receptor cDNA."; "Nol. Pharmacol. 40:869-875(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PIR; S28787; S28787.
InterPro; IRR00276; GPCR_Rhodpsn.
Pfam; PF0001; 7tm 1; 1.
PRINTS; PR00237; GFCRRHODOPSN.
PROSITE; PS50262; GFROTEIN_RECEP_FI_1; 1.
PROSITE; PS50262; GFROTEIN_RECEP_FI_2; 1.
G-protein coupled receptor; Transmembrane, Glycoprotein; Sulfation.
TRANSMEM 41 (FOTENTIAL).
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N-LINKED (GLCNAC. . .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                             Werling D.; "Role of chemokines in respiratory syncytial virus infection."; Submitted (JUL-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       87.4%; Score 1631; DB 1; Length 353;
86.8%; Pred. No. 5.7e-100;
artive 26; Mismatches 15; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
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EXTRACELLULAR (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
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EMBL; AF399642; AAK94452.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                        THAT IT IS NOT A NPY3-R.
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                                                                                            ISSUE=Locus coeruleus;
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Best Local Similarity
Matches 308; Conserv
                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
NCBI_TaxID=9913;
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64 MGYQKKLRSMIDKYRLHLSVADLLFVUTLPFWAVDAVANWYFGKFLCKAVHVIYTVNLYS

65 MGYOKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYS

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185 SQGDDRYICDRLYPDSLWMVVPQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKA

125 SVLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDI

124 63

245 LKTTVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCL 304

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64 6 VSIYTSDNYSE-EVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILV

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Db 239 LKTTVILLEFFACWLPYYGISIDSFILLERIQQGGEFESTVHKWISITEALAFFHCCL 298	QY 30S NPILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS '359	 CCR4 SHEEP ID CCR4 SHEEP STANDARD; PRT; 192 AA. 27 COSE(3.	AC (2000) TOT 15-UUL-1998 (Rel. 36, Created) DT 15-UUL-1908 (Pel. 36, Last semisors undate)	15-00D-1990 (Rel. 30, Dast Bequence update) 28-FEB-2003 (Rel. 41, Last annotation update)	DE C-X-C chemokine receptor type 4 (CXC-R4) (CXCR-4) (SDF-1 receptor) DB (Stromal cell-derived factor 1 receptor) (Fusin) (Leukocyte-derived	DE seven transmembrane domain receptor) (LESTR) (Fragment). GN CXCR4 OR LESTR.	Ovis aries (Sheep).	OC Bukaryota; Metazoa; Unordata; Crantata; Vertebiata; Butereoscomi; OC Mammalia; Butheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;	OC Bovidae, Caprinae, Ovis. OX NCBI TaxID=9940,	RP SEQUENCE FROM N.A. RC TISSUE=Hypothalamus;	RA Dyer C.J., Matteri R.L., Keisler D.H.;	mRNA in the ovine hypothalamus and pituitary.";	Abstr Soc. Neurosci. 21:1890-1890(1995).			-!- PTM: Sulfated (By similarity). -!- STMTLARTTY: Belonds to family!		neuropeptide Y type 3 (NPY3-R).		CC between the Swiss Institute of Bioinformatics and the EMBL outstation -				DR EMBL; U38942; AAA81347.1;	Pfam; PFOC	PRINTS; PR00237; C	DR PROSITE; PS00237; G_FROTEIN_RECEP_FI_1; 1. DR PROSITE; PS50262; G_PROTEIN_RECEP_FI_2; 1.	G-protein coupled	NON TER 1 1 1	POTENTIAL).
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MEDLINE=22388257, PubMed=12477932;
Strausberg R.L., Feingold, Strouse L.H., Derge J.G.,
Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.
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CXCR3 OR GFR9.
Homo sapiens (Human).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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"cDNA clones of human proteins involved in signal transduction
sequenced by the Guthrie CDNA resource center (www.cdna.org).";
submitted (FEB-2003) to the EMBL/GenBank/DDBJ databases.
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                              EXTRACELLULAR (POTENTIAL).

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CYTOPLASMIC (POTENTIAL).

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MEDLINE=97188912; PubMed=9064356;
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Hepchenis R.F., Jordan H., Nocre T., Wars S.I., Wang J., Heich F. B. Backenko H., Naturaina H., Nocre T., Wars S.I., Wang J., Heich F. B. Backenko H., Soares R.B., Benaldo M.F. A., Rubhin G.M. Hong I. Backenko H., Soares R.B., Benaldo M.F., Rubhin G.M. Hong I. Benaldon M. Soares R.B., Benaldo M.F., Soares T.E., Stepher G. B. Benaldon M. Soares R.B., Benaldo M.F., Soares T.E., Stepher G. S. S., Longeal and M. Green E. J., Lu X., Gibber T.E., Banaldon M.F., Soares R.B., Manned M. Soares M. G., Marin D. M., Manned M. Soares R. J., Lu X., Gibber R.A., Manned M. Soares R. J., Lu X., Gibber R.A., Manned M. Soares R. J., Lu X., Gibber R.A., Manned M. Soares R. J., Lu X., Gibber R.A., Manned M. Soares R.J., Lu X., Gibber R.A., Manned M. Soares R.J., Lu X., Gibber R.A., Manned M. Soares R.J., Lu X., Gibber R.A., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Saarlake M. S., Sanchera A., Manned M. Soares R.J., Manned M. Soares R.J., Saarlake M. S., Manned M. Soares R.J., Saarlake M. S., Sanchera A., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Saarlake M. Saarlake R. S., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned M. Soares R.J., Manned R.J., Saarlake M., Manned M. Soares R.J., Manned M. Soares R.J., Manned R.J., Saarlake M., Manned M. Soares R.J., Manned M. Soares R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R.J., Manned R
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GO; GO:000155; P:cell adhesion; TAS.

RG; GO:0006928; P:cell motility; TAS.

GO; GO:0006928; P:cell motility; TAS.

GO; GO:0006935; P:cell motility; TAS.

GO; GO:0006936; P:cell motility; TAS.

RG; GO:0006204; P:cytemotaxis; TAS.

RG; GO:0007204; P:cytemotaxis; TAS.

RG; GO:0007204; P:cytemotaxis; TAS.

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314 NPLLYAFVGVKFRERMWLL-----LRLGCPNQRGLQRQPSSSRRDSSW 357
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N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
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A -> R (IN REF. 2).
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CYTOPLASMIC (POTENTIAL).
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CYTOPLASMIC (POTENTIAL).
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40659 MW;
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STANDARD;

CCR3 MOUSE ID CCR3 MOUSE AC 0884I0; DT 16-OCT-2001 (

RESULT 12

(Rel. 40, Created) (Rel. 40, Last sequence update)

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MEDLINE-98118636; PubMed=9653165;

MEDLINE-98118636; PubMed=9653165;

MEDLINE-98118636; PubMed=9653165;

MEDLINE-98118636; PubMed=9653165;

A John N.A., Hedrick J., Zlotnik A.;

John N.A., Hedrick J., Zlotnik A.;

The CC chemokine 6Ckine binds the CXC chemokine receptor CXCR3.";

The CC chemokine 6Ckine binds the CXC chemokine receptor CXCR3.";

The CC chemokine 6Ckine binds the CXC chemokine receptor CXCR3.";

The CC chemokine 6Ckine binds the CXC chemokine receptor CXCR3.";

The CX chemokine 6Ckine binds to SCYB3/MIG SCYB10/INP10 and SCYB11/ITAC (BY SIMILARITY: Belongs to family 1 of G-protein coupled receptors.

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35.2%; Pred. No. 2.2e-31;
Live 70; Mismatches 130; Indels 25; Gaps
28-FEB-2003 (Rel. 41, Last annotation update)
C-X-C chemokine receptor type 3 (CXC-R3) (CXCR-3).
CXCR3 OR CMKAR3.
Buss musculus (Mouse).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.
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N-LINKED (GLCNAC. . .) (POTENTIAL)

N-LINKED (GLCNAC. . .) (POTENTIAL)
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CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
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Best Local Similarity 35.2%
Matches 122; Conservative
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                                      199 ATHCOYNFP-OVGRTALRVLQLVAGFLLPLLVMAYCYAHILAVLLVGRGQRRFRAMRLVV 257
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                                                                                                                258 VVVAARFAVCWTPYHLVVLVDIIMDVGVLARNCGRKSHDVAKSVTSGMGYMHCCLNPLLY
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Mature 400:776-780(1999).
                                                                                      250 ILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Molecular cloning and functional expression of a novel CC chemokine receptor cDNA from a human basophilic cell line.", J. Biol. Chem. 270:19495-19500(1995).
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                                                                                                                                                                                                                                                                                                                                   CKR4_HUMAN STANDARD; PRT; 360 AA.

951679; Q9ULX6; Q9ULX7;
01-0CT-1996 (Rel. 34, Last sequence update)
01-0CT-1996 (Rel. 34, Last sequence update)
C-C chemokine receptor type 4 (C-C CKR-4) (CCR-4) (CCR4)
(KS-5).
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MEDLINE-97313486, PubMed=9169480;

MEDLINE-97313486, Nishimura M., Kakizaki M., Takagi S., Yoshie O.;

Minai T., Baba M., Nishimura M., Kakizaki M., Takagi S., Yoshie O.;

"The T cell-directed CC chemokine TARC is a highly specific
biological ligand for CC chemokine receptor 4.";

J. Biol. Chem. 272:15036-15042(1997).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Kopatz S.A., Aronstam R.S., Sharma S.V.; incDNA clones of human proteins involved in signal transduction sequenced by the Guthrie cDNA resource center (www.cdna.org)."; Submitted (JUN-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE-Spleen;
MEDI-INE-95370289; PubMed=7642634;
Power C.A., Meyer A., Nemeth K., Bacon K.B., Hoogewerf A.J.,
Proudfoot A.E.I., Wells T.N.C.;
                                                                                                                                                                            310 AFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSF 356
                                                                                                                                                                                                                       318 AFVGVKFREKMWMLFTRLGRSD-----QRGPQRQPSSSRRESSW 356
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Biol. Chem. 273:1764-1768(1998).
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its most by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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EMBL; AB023889; BAA86965.1; -

EMBL; AB023899; BAA86966.1; -

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                             MEDLINE=20219238; PubMed=10754297; Inngjerdingen M., Damaj B., Maghazachi A.A.; Inngjerdingen M., Damaj B., Maghazachi A.A.; Inngjerdingen M., Damaj B., Maghazachi A.A.; Inngjerdingen M., Damaj B., Maghazachi A.A.; Inngjerdingen espond to thymus and activation-regulated chemokine, macrophage-derived chemokine, and I-309."; J. Immunol. 164:4048-4054(2000).

-I. FUNCTION: High affinity receptor for the C-C type chemokines TARC/SCYA17 and MC/SCYA22. The activity of this receptor is mediated by G(i) proteins which activate a phosphatidylinositol.
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FUNCTION, TISSUE SPECIFICITY, AND PHOSPHORYLATION.
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interleukin-8 receptors."; J. Biol. Chem. 271:32770-32776(1996). J. Biol. Chem. 271:32770-32776(1996). J. Biol. Chem. 271:32770-32776(1996). J. Biol. Chem. 271:32770-32776(1996). J. STUCTION: Receptor to interleukin-8, which is a powerful neutrophils chemotactic feature. Binding of IL-8 to the receptor Gauses activation of neutrophils. This response is mediated via a G-protein that activate a phosphatidylinosticl-calcium second messenger system. This receptor binds to IL-8 with a high affinity. J. SUBCELLIARA LOCATION: Integral membrane protein. J. SUMILARITY: Belongs to family 1 of G-protein coupled receptors.	SWISS-PROT entry is copyright. It is produced through a collaborateen the Swiss Institute of Bioinformatics and the EMBL outstatic	the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/	or send an email to license@isb-sib.ch).  EMBL; X77797, CAA54824.1;	EMBL; U70988; AAC22961.1; InterPro; IPR000276; GPCR_Rhodpsn. Pfam; PF0001; 7tm 1; 1. nniwnc. ps00737. GFCPDD47ACGW	FRANTE; FACETY, GENERALIN RECEP F1 1; 1. PROSITE; PS0237; GFROTEIN RECEP F1 2; 1. G-protein coupled receptor; Transmembrane; Glycoprotein;	1 47 48 74 75 83	M 84 104 2 (POTENTIAL). 105 119 EXTRACELLULAR M 120 141 3 (POTENTIAL).  M 163 182 4 (POTENTIAL).	DOMAIN
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receptor).
IlbrB OR CXCR2.
Rattus norvegicus (Rat).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                               ILBB_RAT STANDARD; PRT; 359 AA.
P35407;
01-JUN-1994 (Rel. 29, Created)
01-FEB-1996 (Rel. 33, Last sequence update)
30-MAY-2000 (Rel. 39, Last annotation update)
High affinity interleukin-8 receptor B (IL-8R B) (CXCR-2) (GRO/MGSA
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STRAIN-Wistar, TISSUE-Liver;
Konishi K., Shibata F., Watanabe K., Tsurufuji S., Nakagawa H.,
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MEDLINE=97361587; PubMed=9218648;
Gobl A.E., Huang M.K., Wang S., Zhou Y., Oeberg K.;
"Molecular cloning and characterization of a cDNA encoding the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          interleukin-8 receptor.";
Biochim. Biophys. Acta 1326:171-177(1997)
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CYTOPLASMIC (POTENTIAL).

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BY SIMILARITY. DB 1; Length 359; 30.1%; Score 562; DB 1; Length 35: 35.0%; Pred. No. 4e-30; cive 67; Mismatches 126; Indels 40532 MW; Query Match Best Local Similarity 35.03 Matches 130; Conservative 201 88 80 100 100 100 100 100 DOMAIN TRANSMEM DOMAIN CARBOHYD CARBOHYD CARBOHYD CARBOHYD DISULFID SEQUENCE 12 59 99 183 877777777777 셤 g g ò g ઠે δ

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STRAIN=Wistar; TISSUE=Lung, and Spleen; MEDLINE=97115810; PubMed=8955112; Dunstan C.-A.N., Salafranca M.N., Adhikari S., Xia Y., Feng Harrison J.K.; Harrison J.K.; I two rat genes orthologous to the human "Identification of two rat genes

Pujioka M.; Submitted (JUL-1995) to the EMBL/GenBank/DDBJ databases.

SEQUENCE FROM N.A.

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REGULARIZE STATES BY PubMed=1737938;

REA Lee J., Kuang W.-J., Rice G.C., Wood W.I.;

RA Lee J., Kuang W.-J., Rice G.C., Wood W.I.;

RT IL-8 receptor.";

T. IL-8 receptor.";

J. Immunol. 148:1126-11264(1992).

C. -! FUNCTION: Receptor to interleukin-8, which is a powerful neutrophils chemotactic factor. Binding of IL-8 to the receptor causes activation of neutrophils. This response is mediated via a C.C. G-protein that activate a phosphatidylinositol-calcium second messenger system.

C. G-protein LAM COATION: Integral membrane protein.

C. -! SUBCELFULAR LOCATION: Integral membrane protein.

C. -! SIMILARITY: Belongs to family 1 of G-protein coupled receptors.

C. -! CAUTION: Was originally (Ref. 2) thought to be the receptor for C. -! CAUTION: Was originally leptide receptor).

C. -! CAUTION: Was originally (Ref. 2) thought to be the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the receptor for C. -! CAUTION: Was originally refer to the rec -----LKİMANYGLVSKEFLAKEĞRP 345 FKAHMGQKHRAMRVIFAVVLVFLLCWLPYNIVLFTDTLMRTKLIKETCERQNEINKALEA 297 ---GKRGGH 344 SEQUENCE FROM N.A.
STRAIN=Albino; TISSUE-Neutrophils;
MEDLINE=91056034; PubMed=1700779;
Thomas K.M., Pyun H.Y., Navarro J.;
"Molecular cloning of the fMet-Leu-Phe receptor from neutrophils.";
J. Biol. Chem. 265:20061-20064 (1990). Euteleostomi; . . MEDLINE=91378994; PubMed=1898400;
Beckmann M.P., Munger W.E., Kozlosky C., Vanden Bos T., Price Lyman S., Gerard N.P., Gerard C., Cerretti D.P.;
"Molecular characterization of the interleukin-8 receptor.";
Biochem. Biophys. Res. Commun. 179:784-789(1991). TEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKILSK---01-FEB-1991 (Rel. 17, Created)
01-MAY-1992 (Rel. 22, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
High affinity interleukin-8 receptor A (IL-8R A) (CXCR-1).
ILBRA OR CXCR1. Oryctolagus cuniculus (Rabbit). Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Eut Mammalia, Eutheria, Lagomorpha, Leporidae, Oryctolagus 355 AA TEILGFLHSCLNPIIYAFIGOKFR----HGL PRT; SFVGSSSANTS 356 SSVSTESESSS 355 STANDARD; SEQUENCE FROM N.A. NCBI\_TaxID=9986; RABIT 298 294 345 346 IL8A RA P21109; DAPPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER RREPER

CYTOPLASMIC (FOTENTIAL).
N-LINKED (GLCNAC. . .) (FOTENTIAL)
N-LINKED (GLCNAC. . .) (FOTENTIAL)
BY SIMILARITY.

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CONFLICT

TRACECT (POTENTIAL)

5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLUIAR (POTENTIAL).
7 (POTENTIAL).

G\_PROTEIN RECEP\_F1\_1; 1. G\_PROTEIN\_RECEP\_F1\_2; 1. receptor; Transmembrane; Glycoprotein;

PROSITE; PS00237; PROSITE; PS50262; G-protein coupled

ds1.7-7c0-/oc-60-8n

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G-protein co Chemotaxis.

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EXTRACELLULAR (POTENTIAL).

1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).

2 (POTENTIAL). EXTRACELLULAR (POTENTIAL) 3 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)

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PAFCPDHAYLGRLQGKRLDFR (IN REF. 2).
R -> C (IN REF. 2).
DI -> EL (IN REF. 2). DB 1; Length 355; 310 AFLGAKFKSSAQHALNSMSRG-SSLKILSKGKRGGHSSVSTESESS 354 311 AFIGONFRNGFLKML--AARGLISKEFLTRHRVTSYTSSTNVPSN 354 29.5%; Score 551.5; DB 1; Length 39.35.0%; Pred. No. 1.9e-29; ive 72; Mismatches 142; Indels I -> EL (IN REF. 2). EFE49ACB9D1E0F21 CRC64; 40622 MW; Best Local Similarity 35.0 Matches 121; Conservative 146 204 287 355 AA; CONFLICT CONFLICT CONFLICT SEQUENCE 12 Query Match Best Local ( 셤 8 셤 ò 8 ò g ઠે g à ò

completed: May 17, 2004, 22:16:44 ne : 28 secs Search comp Job time :

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EMBL; M58021; AAA31371; -.
EMBL; M28673; AAA31376.1; -.
PIR; A23669; A23669.
PIR; JQ1231; JQ1231.
Interpro; IPR000276; GPCR\_Rhodpsn.
Pfam; PP00001; 7rm 1; 1.
PRINTS; PR00137; GPCRRHODOPSN.

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

May 17, 2004, 21:20:57 ; Search time 128 Seconds (without alignments) 884.930 Million cell updates/sec Run on:

US-09-367-052-2 1867 1 MEPISVSIYTSDNYSEEVGS......KRGGHSSVSTESESSSFHSS 359 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

Total number of hits satisfying chosen parameters: 1017041 segs, 315518202 residues Searched:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database:

SPTRENBL 25:\*
1: SP\_archea:\*
2: Sp\_bacteria:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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No.	Score	Match	Match Length DB	DB	ΔI	Description
- - - - - - - - - - -	1758.5	94.2	349	17	Q8VD47	Q8vd47 rattus norv
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9	1678.5	89.9	347	9	09MZM9	Q9mzm9 ateles pani
7	1677.5	89.9		φ	Q9MZP7	Q9mzp7 presbytis s
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on.	1676.5	89.8		φ	09MZO0	
10	1676.5			φ	OBMZMS	O9mzm5 pithecia pi
11	1676.5	89.8		9	O9MZP0	Q9mzp0 macaca assa
12	1676.5		347	b	Q9MZQ2	O9mzg2 pygathrix r
13	1676.5	æ		v	Q9MZP4	Q9mzp4 presbytis f
14	1676.5	æ		ø	6dZM6Ö	Q9mzp9 nasalis lar
15	1676.5	æ		9	Q9MZP5	Q9mzp5 presbytis p
16	1676.5	89.8	347	Q	O9MZQ3	Q9mzq3 pygathrix a

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## ALIGNMENTS

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36	01-JUN-2003	(TrEMBLrel.	4 6 7 4		tation tation	annotation update)			
8	Chemokine re	Chemokine receptor CXCR4.	R4.						
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Mai	mmalia, Eu		dentia		nathi;	Muridae	Sciurognathi, Muridae; Murinae; Rattus	e; Ra	ttus.
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֪֖֖֖֞	hemokine r	"Chemokine regulation of neuronal signaling and gp120 neurotoxicity.	of neu	ronal sig	maling	and gp1	20 neurc	toxic	ity.";
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ery	Query Match		94.2%;	Score 1	758.5;	Score 1758.5; DB 11;	Length	349;	
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01-MAR-2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2003 (TrEMBLrel. 25, Last annotation update)
Chemokine receptor CXCR4.
Callithirix jacchus (Common marmoset).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutsleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Callitrichidae; Callithrix.
NCBL_TaxID=9483;
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MEDLINE-22174688; PubMed-12186836;

A Laborte J.A., Babcock G.J., Patel T., Sodroski J.;

Laborte J.A., Babcock G.J., Patel T., Sodroski J.;

Englockade of HIVI Infection of New World Monkey Cells Occurs

T Primarily at the Stage of Virus Entry.";

L. J. Exp. Med. 196:431-445(2002).

E. M. A. MAN145281.;

E. M. A. MAN145281.;

E. M. GO: GO: 0010581;

F. Preceptor activity; IEA.

GO; GO: 00071884;

F. Preceptor activity; IEA.

GO; GO: 00071886;

F. Preceptor activity; IEA.

GO; GO: 00071886;

F. Preceptor activity; IEA.

R. O: GO: 00071886;

F. Prodopsin-like receptor activity; IEA.

GO; GO: 00071886;

F. Prodopsin-like receptor activity;

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P. PROMO17 7 PROMO506;

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                                           VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM
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EMBL; AY177628; AAO47588.2; -.
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Q7XS92,

Q7XS92,

Q1-CCT-2003 (TrEMBLrel. 25, Created)

O1-OCT-2003 (TrEMBLrel. 25, Last sequence update)

O1-OCT-2003 (TrEMBLrel. 25, Last annotation update)

O1-OCT-2003 (TrEMBLrel. 25, Last annotation update)

Tupaia belanger: CXCR4.

Tupaia belanger: Chinensia;

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Eutheria; Scandentia; Tupaiidae; Tupaia.
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90.7%; Score 1692.5; DB 6; Length 352;
Best Local Similarity 91.2%; Pred. No. 6.7e-144;
Matches 323; Conservative 15; Mismatches 11; Indels 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   352 AA; 39719 MW; 606B07A6D46A7D53 CRC64;
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SEQUENCE FROM N.A.
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125 KITVILILAPFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLN 305 64 GYQKKLRSMTDKYRLHLSVADLLFVITLFFWAVDAVANWYFGKFLCKAVHVIYTVNLYSS 123 65 63 4 ISIYTSDNYTEEIGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVM 66 GYQKKIRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSS VLILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDIS QGDDRYICDRLYPDSLWMVVPQPQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKAL 6 VSIYTSDNYSBEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVM 359 PILYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS ., DB 6; Length 352; 10; Indels 352 AA; 39802 MW; 8018A4500FC887C0 CRC64; Created) Last sequence update) Query Match
90.6%; Score 1691.5; DB 6.
Best Local Similarity 90.7%; Pred. No. 9.2e-144;
Matches 321; Conservative 18; Mismatches 10;

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Sublitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.

-!-SINGLARITY: BZLONGS TO PAMILY 1 OF G-PROTEIN GNY SIMILARITY).

SEMEL, ABOLDS43; BAA3127.1,

C. !- SIMILARITY: EZCONGS TO PAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

BMBL, ABOLDS43; BAA3127.1,

CO, GO:0001804; Enceptor activity; IEA.

GO; GO:0001884; F:rhodopsin-like receptor activity; IEA.

GO; GO:0001884; F:rhodopsin-like receptor protein signalin. .; IEA.

InterPro; IPR003006; Ig_MEC.

RENNTS; PR00237; GPCRH0DOPSN.

PROSITE; PS50262; GPRHDDOPSN.

PROSITE; PS50262; GPROTEIN_RECEP_F1_1; 1.

PROSITE; PS00237; GPROTEIN_RECEP_F1_2; 1.

RESOSITE; PS50262; GPROTEIN_RECEP_F1_2; 1.

RESOSITE; PS50262; GPROTEIN_RECEP_F1_2; 1.

RESOSITE; PS50262; GPROTEIN_RECEP_F1_2; 1.

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Mammalia; Butheria; Primates; Platyrrhini; Cebidae; Atelinae; Ateles
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
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Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.
-1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).
-1- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
EMBL, ARI72214, ARF89354.1; -- embrane; IEA.
GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:0004872; F:receptor activity; IEA.
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cDNA sequence of African green monkey CXCR-4 chemokine receptor
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
90.0%; Score 1679.5; DB 6;
Best Local Similarity 90.4%; Pred. No. 9.9e-143;
Matches 320; Conservative 16; Mismatches 13;
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                                        Chemokine receptor CXCR4.
Saimiri sciureus (Common squirrel monkey).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Saimiri.
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MEDIJIE=22174698; PubMed=12186836;
A Laborte J.A., Baboock G.J.;
Laborte J.A., Baboock G.J.;
Laborte J.A., Baboock G.J.;
Laborte J.A., Baboock G.J.;
Laborte J.A., Baboock G.J.;
T Primarily at the Stage of Virus Entry.";
J. Bxp. Med. 196431-445(2002).
R. Bxp. Med. 196431-445(2002).
R. GO; GO:0016021; C:integral to membrane; IEA.
GO; GO:001584; F:receptor activity; IEA.
GO; GO:0001584; F:receptor activity; IEA.
GO; GO:0001586; P:G-protein coupled receptor protein signalin...;
R. InterPro; IPR003076; GPCR. Rhodpsn.
R. InterPro; IPR003006; IG-MHC.
R. PROSITE; PS00237; G-PROTEIN RECEP_F1_1; 1.
R. PROSITE; PS00237; G-PROTEIN RECEP_F1_2; 1.
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Carcopitheous aethiops (Green monkey) (Grivet).

Bukaryota, Metazoga, Chordata, Craniata, Vertebrata, Euteleostomi;

Mammalia, Butheria, Primates, Catarrhini, Cercopithecidae,

Cercopithecinae, Cercopithecus.
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01-NOV-1998 (TrEMBLrel. 08, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
                01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
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SEQUENCE FROM N.A.
Murayama Y., Matsunaga S., Inoue-Murayama M.;
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Matches 321; Conserv
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SEQUENCE
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Q9MZP8;
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Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
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GO; GO:0007186; P:G-protein coupled receptor protein signalin.
InterPro; IPR00276; GPCR_Rhodpsn.
InterPro; IPR003006; Ig_MHC.
PRINTS; PR00237; GPCRHODOPSN.
PROSITE; PS00237; GPROTEIN RECEP_F11; 1.
PROSITE; PS00237; GPROTEIN RECEP_F12; 1.
PROSITE; PS00290; IG_MHC; 1.
ROSITE; PS00290; IG_MHC; 1.
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                                                                                                                                                                                                                                                                                                                                                                          89.9%; Score 1678.5; DB 6; Length
90.6%; Pred. No. 1.2e-142;
ive 18; Mismatches 10; Indels
                                                                                                                                                                                                                                                                                                                    SEQUENCE 347 AA; 39317 MW; B84037A04490A1D1 CRC64;
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTW-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 90.63
Matches 319, Conservative
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RADE SEQUENCE FROM N.A.

RADIOLOGICAL STOUTH OF THE CHEMOKINE Receptor CXCR4 Gene Sequences in Thinates.". Zhang Y.-P., Geng Z.-C.;

RIP "MOLECULAR EVOLUTION of the Chemokine Receptor CXCR4 Gene Sequences in Frinates." [ALCALION STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE STATE
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Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
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PROSITE; PS00237; G_PROTEIN RECEP F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
PROSITE; PS00290; IG_MHC; 1.
PLOTECEIN COUPLE COUPLE RECEPTOR; Transmembrane.
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1-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
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248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI 307
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Matches 319,
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Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;

Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;

"wolecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in Primates.";

Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

C.-I. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN (BY SIMILARITY).

EMBL; AF172213; AAF89333.1;

C.-I. SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

EMBL; AF172213; AAF89333.1;

C.-I. SIMILARITY: Exceptor activity; IEA.

GO; GO:0016081; F: receptor activity; IEA.

GO; GO:001884; F: rhodopsin-like receptor activity; IEA.

GO; GO:001884; F: Rhodopsin-like receptor protein signalin. . .; IEA.

RICEPPO: IPR000276; GPCR. Rhodops.

RICEPPO: IPR001786; Ig_MG.

RICEPPO: JER003006; Ig_MG.

RROSITE; PS00237; GPROTEIN RECEP_F1_2; 1.

PROSITE; PS00237; GPROTEIN RECEP_F1_2; 1.

PROSITE; PS00230; IG_MHC; 1.

ON TER
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
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                                    89.8%; Score 1676.5; DB 6; Length 347; 90.6%; Pred. No. 1.8e-142; ive 16; Mismatches 12; Indels 5;
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
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                                    Query Match
Best Local Similarity 90.6%
Matches 319; Conservative
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NCBI_TaxID=54133;
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Matches 319;
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187

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22 Sequence FROM N.A.

24 Sheng X.-Z., Zhang Y.-P., Geng Z.-C.;

25 Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;

26 Twoledcular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in Finates...;

27 Trimates...;

28 Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

28 Submitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

29 SubcelLular Locariow: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY)...

20 SubcelLular Locariow: INTEGRAL OF GenROLED RECEPTORS.

21 SIMILARITY: BELONGS TO FAMILY OF G-PROTEIN COUPLED RECEPTORS.

22 SIMILARITY: BELONGS TO FAMILY IEA.

23 GO: 00104872; Fireceptor activity; IEA.

24 GO: 00104872; Fireceptor activity; IEA.

25 GO: 00104872; Fireceptor activity; IEA.

26 GO: 001884; Firedopsin-like receptor protein signalin...; IEA.

26 GO: 001884; Firedopsin-like receptor protein signalin...; IEA.

27 InterPro; IPR00276; GPCR Rhodpsn.

28 Ffan; PF0001; 7m 1; 1.

29 RROSITE; PS00237; GPRRHODOPSN.

29 PROSITE; PS00237; GPROTEIN RECEP_F1_2; 1.

20 RROSITE; PS00290; IG MRG; 1.

20 RROSITE; PS00290; IG MRG; 1.

20 RROSITE; PS00290; IG MRG; 1.

20 RROSITE; PS00290; IG MRG; 1.
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                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Pitheciinae;
Pithecia.
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                                                      01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-OCT-2003 (TrEMBLrel. 24, Last annotation update)
Chemoxine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ch 89.8%; Score 1676.5; DB 6; Il Similarity 90.6%; Pred. No. 1.8e-142; 319; Conservative 17; Mismatches 11;
   Ş
                                                                                                                                                                                                   CXCR4.
Pithecia pithecia (White-faced Baki)
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=43777;
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8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY

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176 DDRYICDRFYPNDLMVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                248 TVILILAFFACWLPYYVGISIDSFILLGVIKOGCDFESIVHKWISITEALAFFHCCLNPI
                                                                                                                                                            296 LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGHSSVSTESESSSFHSS
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                           ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG 187
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| Purimates | Full Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court | Court |
                                                  121 ILAFISLDRYLAIVHATTSQRPRKLLAEKVVYVGVWIPALLLTIPDFIFANV----SEA
                                                                                                                           TVILILAFPACWLPYYIGISIDSFILLEIIRQGCEFENTVHKWISITEALAFFHCCLNPI
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                                                                                                     DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [1] -
SEQUENCE FROM N.A.
Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;
"Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Macaca assamensis (Assam's macaque) (Assam's monkey).
Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia, Butheria, Primates; Catarrhini, Cercopithecidae;
                                                                                                                                                                                                                                                                LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359
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01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UTN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                        347 AA
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NCBI_TaxID=9551;
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128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLLTIPDFIFADVSQGDISQG 187
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                                                                                                                                                                                                                                                                                               Pygathrix roxellana (golden snub-nosed monkey).

Bykaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalla; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;

Pygathrix.

NUBI TAXID=61622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLPTIYSIIFLTGIVGNGLVILVMGY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   176 DDRYICDRFYPNDLWVVVPQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                             Zheng X.-Z., Zhang Y.-P., Geng Z.-C., "Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences
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                                                    Last sequence update)
Last annotation update)
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                              01-0CT-2000 (TrEMBLrel. 15, Created)
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01-JUN-2003 (TrEMBLrel. 24, Last ann
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Matches 319; Conservative
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295

68 OKKLRSMIDKYRLHLSVADLLFVITLPFWAVDAMADWYFGKFLCKAVHIIYTVNLYSSVL 127 187 175 247 235 9 67 끍 121 ILAFISLDRYLAIVHATNSQXPRKLLAEKVVXVGVWIPALLLIPDFIFASV----SBA 128 ILAFISLDRYLAIVHATNSQRPRKLLAEKAVYVGVWIPALLITIPDFIFADVSQGDISQG DDRYICDRLYPDSLWMVVFQFQHIMVGLILPGIVILSCYCIIISKLSHSKGHQKRKALKT 248 TVILILAFFACWLPYYVGISIDSFILLGVIKQGCDFESIVHKWISITEALAFFHCCLNPI TVILILAFFACWLPYYIGISIDSFILLBIIKQGCBFENTVHKWISITEALAFFHCCLNPI 8 IYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLPTIYFIIFLTGIVGNGLVILVMGY 1 IYTSDNYTEEMGSGDYDSIKEPCFREENAHFNRIFLFTIYSIIFLTGIVGNGLVILVWGY Presbytis francoisi. Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Primates, Catarrhini, Cercopithecidae, Colobinae, Gaps SEQUENCE FROM N.A.
Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;
"Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 359 359 347 5 Query Match

89.8%; Score 1676.5; DB 6; Length 347;
Best Local Similarity 90.6%; Pred. No. 1.8e-142;
Matches 319; Conservative 16; Mismatches 12; Indels 5; 308 LYAFLGAKFKSSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 296 LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS 01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment) 347 PRT; PRELIMINARY; NCBI\_TaxID=33549; Presbytis. 188 236 308 Q9MZP4 RESULT 13 Q9MZP4 음 à d ò g 8 셤 δ 원 ò 임 ઠે

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therefore, and the EMBL/GenBank/DDBJ databases.

Lubmitted (JUL-1999) to the EMBL/GenBank/DDBJ databases.

C. SUBMITTED COATION: INTEGRAL MEMBRANE PROTEIN (BY SIMILARITY).

C. STRILARITY: BELONGS TO PAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

DR GO, GO:0016021; C:integral to membrane; IEA.

GO, GO:0016021; C:integral to membrane; IEA.

GO; GO:001884; F:rhodopsin-like receptor activity; IEA.

R GO; GO:001886; F:G-protein coupled receptor protein signalin. .; IEA.

R GO; GO:000186; F:G-protein coupled receptor protein signalin. .; IEA.

R GO; GO:000187; GPCR.Rhodopsn.

R GO; GO:000187; GPCR.Rhodopsn.

R ROSITE; PRO0237; GPCR.RHODOPSN.

PROSITE; PS00237; GPROTEIN RECEP.F1_2; 1.

R ROSITE; PS00290; IG_MHC; 1.

R GO:000189; IG_MHC; 1.

R GO:000189; IG_MHC; 1.

R GO:000189; IG_MHC; 1.

R GO:000189; IG_MHC; 1.

R GO:000189; IG_MHC; I.

R GO:000189; IG_MHC; I.

R GO:000189; IG_MHC; I.
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Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
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                       01-OCT-2000 (TrEMBLrel. 15, Created)
01-OCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
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Last sequence update)
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89.8%; Score 1676.5; DB 6
Best Local Similarity 90.6%; Pred. No. 1.8e-142;
Matches 319; Conservative 16; Mismatches 12;
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Q9MZP5,
01-OCT-2000 (TrEMBLrel. 15,
01-OCT-2000 (TrEMBLrel. 15,
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
Zheng X.-Z., Zhang Y.-P., Geng Z.-C.;
"Molecular Evolution of the Chemokine Receptor CXCR4 Gene Sequences in
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                                                                                                                  Presbytis phayrei.
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Butheria; Primates; Catarrhini; Cercopithecidae; Colobinae;
Presbytis.
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01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Chemokine receptor CXCR4 (Fragment).
CXCR4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 90.69
Matches 319; Conservative
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TITLE Molecular cloning and characterization of a murine pre-B-cell growth-stimulating factor/stromal cell-derived factor I receptor, a murine homolog of the human immunodeficiency virus I entry coreceptor fusin Froc. Natl. Acad. Sci. U.S.A. 93 (25), 14726-14729 (1996) NEDLINE PUBMED 8962122 REFERENCE 2 (bases I to 1877) AUTHORS Nagasawa,T.T. Molecular cloning of murine PBSF/SDF-1 receptor TITLE Molecular cloning of murine PBSF/SDF-1 receptor TITLE Molecular cloning of murine PBSF/SDF-1 receptor TITLE Nagasawa,T. TITLE Nagasawa,T. TITLE Submitted (05-SEP-1996) Takashi Nagasawa, Research Institute, Osaka Medical Center, Department of Immunology; Murodocho 840, Izumi,	and:limmunol@osk.threewebnet.or.jf 725-57-3021) fiers musculus" 1:10090" 4" oone marrow" CXCR-4" CXCR-4"	/evidence=experimental /product="murine CKCR-4" /product="murine CKCR-4" /product="murine CKCR-4" /product="murine CKCR-4" /protein id="BAA13451.1" /db xref="G1:1772446" /db xref="G1:1772446" /db xref="G1:1772446" /tranlation="MPPISV91YTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP TIYPTIFLGTAVHIYTVNHYSSYLILAFISLDRYLAHTUNSQRPKLLARKAVYV GVWIPPALLITIPPFFRANGDSGDISGGDDRYTCDRLYPSDSLMMYVPGPQHIMNGLILP GIVILSCYCTIISKLSHSKGHGKRKALTTVILILAFFACMLPYVYGISLINGFLLGV IKQGCDFESIVHKWISITEALAFFHCCLNFILYAFLGAKFKSSAQHALNSMSRGSSLK ILSKGKRGGHSSVSTESESSSFHSS"  Query Match Best Local Similarity 100.0%; Score 685; DB 10; Length 1877; Best Local Similarity 100.0%; Pred. No. 5.8e-170; Matches 685; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	RAGGCTCGAGCGCCCCGGGCAGTGCAGGGGGGGCCGCCGGCCAGGCGGCGCGCGC

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This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein.

Location/Qualifiers
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IKQGCDFESIVHKWISITEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGGHSSVSTESESSSFHSS"
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//note=17fm_1; Region: 7 transmembrane receptor (rhodopsin
family)"t /db_xref="CDD:pfam00001"
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cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BCM-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged, H.,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "note="synonyms: LESTR, fusin, PB-CKR, PBSF/SDF-1, CD184"

'db_xref="LocusID:12767"

'db_xref="MGI:109563"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                // Organism="Mus musculus"
/mol type="mRNa"
/strain="PVB\N"
/db Xref="Haxon:10090"
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/clone_lib="NOT CGAP_Mam1"
/lab_host="PH10B"
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MMLSSTRPT 1575 bp mRNA linear ROD 11-NOV-1996 M.musculus mRNA for leukocyte-dervied seven transmembrane domain receptor.
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Direct Submission
Submitted (19-7UL-1996) B. Moepps, Universitaet Ulm,
Submitted (19-7UL-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm, FRG
Revised by author 11-NOV-96
On Nov 12, 1996 this sequence version replaced gi:1657351.
Location/Qualifiers
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                       307
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Mus musculus (house mouse)
Mus musculus
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Sciurognathi, Muridae, Murinae, Mus
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                                                                                                                                                                                   368 AGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT
                                                                                                                                                                                                                                                                           CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCACCTGGACCGGTA
                                                                  590 AGTCTATGTGGGCGTCTGGATCCCCAGCCTTCCTCGTGACTATACCTGACTTCATCTTTGC
CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATAGGACGAAA
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1. .1575
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Mammalia; Eutheria; Rodentia;
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/gene="lestr"
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Suzuki,G., Nakata,Y., Uzawa,A., Shirasawa,T., Saito,T. and Mita,K.
Molecular cloning of murine CXCR-4, a murine homologue of HIV entry
cor receptor, that is expressed on leukocyte and other organs
Unpublished
22 (bases 1 to 1809)
33 Suzuki,G.
34 Suzuki,G.
35 Suzuki,G.
36 Direct Submission
36 Direct Submission
37 Submitted (29-JAN-1997) Gen Suzuki, National Institute of
Radiological Sciences, Division of Radiation Health; 4-9-1,
Anagawa, Inage-ku, Chiba, Chiba, Chiba, 263, Japan
(B-mall:gsuzuki@unmxl.nirs.go.jp, Tel:043-251-2111,
Fax:043-284-1736)
10 Cation/Qualifiers

REFERENCE AUTHORS TITLE JOURNAL

FEATURES

AUTHORS TITLE JOURNAL 50

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ILSKGRKGGASSVSTESSESSFHSS"
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                                                                                                                                                         92.1%; Score 631.2; DB 10; Length larity 99.5%; Pred. No. 9.6e-156; Conservative 0; Mismatches 3; Indels
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Best Local Similarity
Matches 633; Conserv
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TIYPIIETGTYGGUTUNGYQYKEKKSMPDKYKLHJUSVADLEVTILPFWADDAM
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ILSKGRRGGHSSVSTESESSSFHSS"
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90.3%; Score 618.6; DB 10; Length 1809;
Best Local Similarity 99.2%; Pred. No. 2.1e-152;
Matches 632; Conservative 0; Mismatches 4; Indels 1;
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Mouse mRNA for murine CXCR-4, complete cds.
AB000803.1 GI:1816445
AB000803.1 GI:2816445
Murine CXCR-4, fusin.
Mus musculus (house mouse)
Mus musculus
Sincaryota: Metaca, Chordata; Craniata; Vertebrata; Euteleostomi;
Musmanalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; Musinae; M
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RESULT 4
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541 CAGTUTATGROGGCUTCHGATCCAGCCTCCTCCTGACTATACCTGACTTTG 600 649 CCGACGTCAGCGGACATCAGTCAGGGGGATGA 685	Š	
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1223 bp mRNA linear ROD	දුරු පු	391 TCACACTCCCCTTCTGGGC 
A, complete	888	451 GTAAGGCTGTCCATATCAT 361 GTAAGGCTGTCCATATCAT 511 TCATCAGCCTGGACCGGTA 421 TCATCAGCCTGGACCGGTA 721 TCATCAGCCTGGACCGGTA
Mus musculus (house mouse) Mus musculus Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 1223)	& dg	
Heesen, M., Berman, M.A., Benson, J.D., Gerard, C. and Dorf, M.E. Cloning of the mouse fusin gene, homologue to a human HIV-1 co-factor J. Immunol. 157 (12), 5455-5460 (1996)	A da	631 TACCIGACTICALCITIGG
8955194 2 (bases 1 to 1223) Heesen, W., Berman, M.A., Gerard, C. and Dorf, M.E. Direct Submission Submitted (02-JUN-1996) Pathology, Harvard Medical School, 200 Longwood Avenue, Boston, MA 02115, USA	RESULT 6 MMLCR12 LOCUS DEFINITION ACCESSION VERSION VERSION	
<u>.</u>	SOURCE ORGANISM REFERENCE AUTHORS	URCE Mus musculus (house moravius musculus Eukaryota, Metazoa) (Bukaryota, Butheria, FERENCE 1 (bases 1 to 1180) Schubel, A., Burgstahl, TTTTE The mouse homologue
/noce=:geven transmembrane spanning receptor; chemokine-receptor like" /codon_start=1 /product="fusin homolog" /producin_id="AABO7725.1" /db.xref="fusin homolog" /protein_id="AABO7725.1" /db.xref="Gi:1527135" /translation="WEPISYSIYTSDNYSEEVGSGDYDSNKEPCFRDENVHFNRIFLP TIYFIIETTGTUNGURVILVNGYQKKLRSMTDKYRLHLSVADLIPVITLPFWAVDAMA DWYFGKFLCKAVHIIYTWNLYSVIJIAPTSLDSYLALTHSVADLIPVITLPFWAVDAMA DWYFGKFLCKAVHIIYTWNLYSVIJIAPTSLDSYLALTHSPSHWWVFGFGHIMVGLILP GVWIPPALLITIPDFIFADVSQGDISQGDRYICDRLYFDSLMWVVFGFGHIMVGLILP GVWIPPALSHSKHQKRXALKTTVILLIAFFRAWLPAFRAVGILLGV INGGCDFESTVHKWISITEALAFFFCCLNPILYAPLGAKFKSSAQHALNSMSRGSSLK ILSKGRRGGHSSVSTRESESSENSS"	JILLE JOURNAL REFERENCE ANTHORS TITLE JOURNAL COMMENT FEATURES	· ·
idgin Query Match Best Local Similarity 100.0%; Pred. No. 3.5e-146; Matches 595; Conservative 0; Mismatches 0; Indels 0; Gaps 0;		
ACCACCACGGCTGTAGAGGGAGTGTTGCCATGGAACCGATCAGTGAGATATATACACTT 150	, O	

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CXCR - 4"

CA = CA = CA = 202 0 2 . 1"

GGA : P7 06 5 8"

SWTSS - PRO : P7 06 5 8"

SWTSS - PRO : P7 06 5 8"

GOB : PRO I TYSDNY SEEV GSGDY DSNKEP CRDENVHFNR I FLPTI

GNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFWAVDAMADW
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                                                  AGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCA 390
                                                                                                                  COGTIGALGCCALGGCTGGTACTTTGGGAAATTTTGT 450
                                                                                                                                                                                    NCTACACTGTCAACCTCTACAGCGGGTTCTCATCCTGGCCT 510
                                                                                                                                                                                                                                                    ACCTCGCCATTGTCCACGCCACCAAGACAGTCAAAGGCCCAAGGA 570
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MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH,
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"receptor for chemokine SDF-1"
name="CXC chemokine receptor 4"
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"mRNA"
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="adult"
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gene.
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WIPALLLTIPDFIFADVSQGDISQGDDRYICDRLYPDSLWMVVPQFQHUNVGLILEGI VLGSYCIIISKLSHSKMQQKKKALKTTVILILAFPAGWLPYYVGISIDSFILLGVIK QGCDFESIVHKWISTTEALAFPHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLKIL SKGKRGGHSSVVSTESESSSFHSS" 0 375 435 495 555 615 675 TTCTCATCCTGGCCTTCATCAGCCTGGACCGGCTACCTCGCCATGTCCACGCCACGCCACCAACA 430 TGAGTATATACACTTCTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCA 195 ACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 255 71 ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 130 315 TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG 190 250 310 TTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCACCTGTCAACCTGTAACGTCACAGCGG 370 490 70 TCAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT 431 GTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAG GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG ACCITCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT TTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACCTGTCAACCTCTACAGCAGCG TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA GTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAG Gaps Query Match
Best Local Similarity 99.8%; Pred. No. 7.3e-134;
Matches 549; Conservative 0; Mismatches 1; Indels 0; /number=1 16. .>1180 /gene="lcr-1" /number=2 <1. .15 /gene="lcr-1" 685 AGGGGGATGA 251 919 T.T 131 376 311 556 136 196 256 316 191 436 496 371 491 919 551 exon exon ORIGIN g 25 g g ò g ò d δ a  $\overset{\lambda}{\circ}$ g Ω à ò ò ò δ ò

31-OCT-1996 ROD linear gene Mus musculus lcr-1 gene, exon 2. 280113.1 GI:1655638 CXC chemokine receptor 4; CXCR-4; lcr-1 Mus musculus (house mouse) Mis musculus (house mouse) RESULT 7
MMLCR13
LOCUS
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KEYWORDS
SOURCE
ORGANISM

Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae; Mus. (bases 1 to 1422) Schubel, A., Burgstahler, R. and Lipp, M. The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN): High expression in thymus and lymphoid tissues REFERENCE AUTHORS TITLE

ö 180 240 299 Lipp,M.
Direct Submission
Direct Submission
Submitted SEP-1996) Martin Lipp, Max-Delbrueck-Center for
Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH,
D-13122, GERWANY 240 TGTCCCTGTTTCCTTTGCAGATATACACTTCTGATAACTACTCTGAAGAAGAAGAAGGGGGTCTG TGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTG 181 GAGACTATGACTCCAACAAGAACCCTGCTTCCGGGGATGAAAACGTCCATTTCAATAGGA Gaps 79.7%; Score 545.8; DB 10; Length 1422; 97.9%; Pred. No. 3.6e-133; tive 0; Mismatches 12; Indels 0; 260. .1422 /gene="lor-1" 260. .>142="lor-1" /product="CXCR-4" /standard\_name="CXC chemokine receptor 4" function="receptor for chemokine SDF-1" H (MI) 1. 1422
| organism="Mus musculus"
| mol\_type="genomic DNA"
| strain="1298V" | db\_xref="taxon:10090" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_stage="adult" | dev\_ Unpublished 2 (bases 1 to 1422) Query Match Best Local Similarity 97.99 Matches 553; Conservative 'number=2 JOURNAL REFERENCE AUTHORS TITLE JOURNAL gene exon FEATURES ORIGIN 셤 ò ò

540 479 420 539 480 599 629 600 719 999 779 420 TGATCCTGGTCATGGGTTACCAGAAGCTAAGGAGCATGACGGACAAGAAGTACCGGCTGC 480 ACCTGTCAGTGGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA 481 ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTTGGCATTG 361 ACCTGTCAGTGGCTGACCTCTTTTGTCACACACTCCCCTTCTGGGCAGTTGATGCCA 421 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 540 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 600 ACCICIACAGCAGCGITCICATCCIGGCCTICAICAGCCIGGACCGGIACCICGCCATIG GOGICTGGAICCCAGCCCICCTCCTGACTATACCTGACTICATCTTTGCCGACGTCAGCC 720 GCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCC 685 804 AGGGGGACATCAGTCAGGGGGATGA AGGGGACATCAGTCAGGGGGATGA 541 601 661 780 g 임 g ò 8 g 8 ઠે P à d

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301 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC

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300 GAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGA TCTTCCTGCCCACCATCTTCATCATCTTTTGACTGGCATAGTCGGCAATGGATTGG 360 TCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGG

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TYETIETHOTYGOMGLYLLUMGYCKKEKASMTDKYRLHLEVANDAMA
DWYFGTELCKANHIYTYWNYSCYLLIAFISLDRYLAHTNSGPRKLLAEKANYV
GVWIPALLLTIPDFIFADVSGGDISGGDRYICDRLYPDSLMWVVFGFGHINGLLF
INCHCKTOTIISKCSHRSKADKKTTVILLAFFACWLPYYVGISIDSFILLGY
GKQGDPESIYHKWISTTEALAFFHCCLNPILYAFLGAKFKSSAQHALNSMSRGSSLK
ILSKGKRGGHSSVSTESESSSFHSS"
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Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Musinae; Muses 1 to 3366)
Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E.
Cloning of the mouse fusin gene, homologue to a human HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2288 IGTCCCTGTTTCCTTTGCAGATATACACTTCTGATAACTACTCTGAAAGAAGTGGGGGTCTG
                                                                                                                                                                                                                                                                                                                                2 (bases 1 to 3366)
Heesen, M., Berman, M.A., Gerard, C. and Dorf, M.E.
Direct Submission
Submitted (30-UJL-1996) Pathology, Harvard Medical School, 200
Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
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        אמניסטאני 3366 bp DNA linear Mus musculus fusin (CXCR-4) gene, complete cds.
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241

2468 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC

TGATCCTGGTCATGGGTTACCAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC

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2588 TGGCTGACTGCTACTTTGGGAATTTTTGTGTAAAGGCTGTCCATATCATCTACACTGCA

TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA

2528 Accrercaeredecreacrecrerrrerearcacaerecerreresecaerrearecea

ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA

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2648 ACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACGGGTACCTCGCCATTG

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AUTHORS Moepps, B. TITLE Direct Submission JOURNAL Submitted (19-JUL-1996) B. Moepps, Universitaet JOURNAR Revised by [3] REMARK Revised by [3] REFERENCE 3 (bases 1 to 3770) AUTHORS Moepps, B. TITLE Direct Submission JUTLE JOURNAL Submitted (02-APR-1997) B. Moepps, Universitaet
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0; Mismatches 15; Indels 0
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AC145861
Pan troglodytes chromosome UNK clone RP43-21D9, *** SEQUENCING IN PROCESSS ***, 39 unordered pieces.
                                                                                                  AC145861
AC145861.1 GI:33386791
HTG; HTGS_PHASE1.
Pan troglodytes
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Pan.
Wilson,R.K.
                                                                                                                                                                                                                                                                                                                                                                                                                      Toases 1 to 175370)
Wilson,R.K.
Direct Submission
Submitted (01-AUG-2003) Genetics, Genome Sequencing Center, 4444
Forest Park Parkway, St. Louis, MO 63108, USA
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Unpublished
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79.0%; Score 541; DB 2; Length 175370;
Best Local Similarity 97.3%; Pred. No. 8.5e-132;
Matches 550; Conservative 0; Mismatches 15; Indels 0;
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AGCATGACGACAAGTACCGGCTGC 360	A linear HTG 17-DEC-2003 3-480N14, WORKING DRAFT LITOP. a; Vertebrata, Euteleostomi, nathi; Muridae, Murinae, Mus. cing Center, 4444 Forest Park sequencing Center	
301 TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGACCAGACGACGGCTGC 68142 [	र्जा जी तार । । । । । ।	Contact: Submissions@watson.wustl.edu
Qy         301           Db         168142           Qy         361           Db         168202           Qy         481           Db         168262           Qy         541           Db         168332           Qy         541           Db         168382           Qy         601           Db         168442           Qy         601           Db         168502           Qy         661           Db         168502           Db         168502	RESULT 11 ACL47556 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL ROUMBAL COMMENT	

NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.

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Query Match 79.0%; Score 541; DB 2; Length 18
Best Local Similarity 97.3%; Pred. No. 8.5e-132;
Matches 550; Conservative 0; Mismatches 15; Indels
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                                                                                91541 ACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCA 91600
                                                                                                                                                                                                               91601 TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA 91660
                                                                                                                                                                                                                                                                                 91661 ACCICIACAGCAGCGIICICATCAGCCIICATCAGCCIGGACCGGIACCICGCTAIIG 91720
                                                                                                                                                                                                                                                                                                                                                  91781 GCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGACGTCAGCC 91840
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                                                                                                                                                                                             480
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TCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGG 300
                                                             TGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGC 360
                                                                                                                                420
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Schubel, A., Burgetahler, R. and Lipp, M.
The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN): High expression in thymus and lymphoid tissues
2 (bases I to 528)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Lipp,M.

Direct Submission

Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH, D-13122, GERMANY
                         91421 TCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAAAGGATTGG
                                                                                                                                                                                                                                                         ACCICTACAGCAGCGTTCTCATCCTGGCCTTCACCTGGACCGGTACCTCGCCATTG
                                                                                                                                                                                                                                                                                                                          ACCTGTCAGTGGCTGACCTCCTCTTTGTCACACTCCCCTTCTGGGCAGTTGATGCCA
                                                                                                                                                                                            TGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           function="receptor for chemokine SDF-1" standard_name="CXC chemokine receptor 4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MMLCR11 528 bp
Mus musculus mRNA encoding CXCR-4.
280111
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              organism="Mus musculus"
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gene="lcr-1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:10090"
/tissue_type="thymus"
/dev_stage="adult"
<1. .98
                                                                                                                                                                                                                                                                                                                                                                                                                                                       661 AGGGGGACATCAGTCAGGGGGATGA 685
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="lor-1"
oin(a/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers
1. .528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /codon_start=1
/product="CXCR-4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus (house mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /mol_type="mRNA"
/strain="129SV"
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CXCR-4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mus musculus
241
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AC122097

190149 bp DNA linear HTG 15-NOV-2002
Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
unordered pieces.
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                                                                                                         50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 109
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                                                                                                                                                                                                                                                                                                                                                                    128 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 187
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Muzny, D.Marie., Metzker, M.Lee., Abranzon, S., Adams, C., Alder, J.,
Allen, C., Allen, H., Alsbrooks, S., Amin, A., Anguiano, D.,
Anyalebechi, V., Aoyadi, A., Ayodeji, M., Baca, E., Baden, H.,
Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, F.,
Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M.,
Bryant, N., Buhay, C., Burch, P., Burrell, K., Calderon, E.,
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HTG; HTGS PHASE1; HTGS DRAFT; HTGS_FULLTOP.
HTG: HTGS PHASE1; HTGS DRAFT; HTGS_FULLTOP.
HTG: HTGS PHASE1; HTGS DRAFT; HTGS_FULLTOP.

Rattus norvegicus

Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Bammalia; Butheria; Rodentia; Sciurognathi; Muridae;

Rattus.

1 (bases 1 to 190149)
                                                                                                                                                                                                                                                                                                                                                                                                                                                       188 TITCAAIAGGAICTICCTGCCCACCATCTACTICATCATCTTCTTGACTGGCATAGTCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    248 CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   428 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                             14 GCAGGIAGCAGTGACCCTCTGAGGCGTTTGGGGCTCGGGTAACCACCACGGCTGTAGAGC
                                                                                                                                                                                                             110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                                                                                                                        TITCAATAGGAICTICCIGCCCACCAICTACTICATCATCTICTIGACTGGCATAGICGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA
                                                                                                                                                                                                                                                             74 GAGIGITGCCATGGAACCGAIC-----AGTATATACACTICTGATAACTACTCTGAAGA
                                                                                                                                                                                                                                                                                                                    170 AGIGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA
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                                                       Gaps
                                                       9
     Length 528;
                                                       Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             488 CCTCGCCATTGTCCACGCCACCAACAGTCAAAGGCCAAGGA
     DB 10;
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ch 72.4%; Score 495.8; DB 10
11 Similarity 98.5%; Pred. No. 5.6e-120;
513; Conservative 0; Mismatches 2;
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     Query Match
                              Best Local
Matches 51
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Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A., Charde, J., Charde, J., Chen, R., Chen, Y., Chen, Y., Charde, J., Chen, R., Chen, Y., Chen, Y., Chen, Y., Chen, Y., Chen, Y., Chen, Y., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J., Chen, J

TITLE JOURNAL REFERENCE

AUTHORS TITLE JOURNAL

Direct Submission
Submitted (22-MAY-2002) Human Genome Sequencing Center, Department
Submitted (22-MAY-2002) Human Genetics, Baylor College of Medicine, One
Baylor Plaza, Houston, TX 77030, USA
3 (Dases 1 to 190149)
Rat Genome Sequencing Consortium. REFERENCE AUTHORS TITLE JOURNAL

COMMENT

Direct Submission

Submitted (15-NOV-2002) Human Genome Sequencing Center, Department of Modecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence can be seen and sequence contigs within a contig-scaffold that consist entirely of whole senome shotgun sequence reads. Both end sequences and whole genome shotgun sequence can be sed both the contigs will be indicated in the feature

Genome Center ylor College of Medicine

20879 20640 CCTGTCCCTGTTTCTTTTGCAGATATACACTTCGGATAACTACTCGAAGAAGTAGGGTC 20699 20700 TGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAG 20759 20939 NOTE: Bstimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Gabbank draft\_data.html).
NOTE: This is a 'working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved. 298 478 178 418 Assembly program: Phrash version 0.990329
Assembly program: Phrash version 0.990329
Consensus quality: 179135 bases at least Q40
Consensus quality: 181484 bases at least Q30
Consensus quality: 181484 bases at least Q30
Estimated insert size: 187231; sum-of-contigs estimation
Quality coverage: 7x in Q20 bases; sum-of-contigs estimation 20820 GGTAATCCTGGTCATGGGTTACCAGAAGAAGCTGAGGAGGAGGAGACAAGACAAGTACCGGCT 20880 GCACCTGTCCGTGGCTGACCTCTTTTGTCATCACACTCCCCTTCTGGGCAGTGGACGC 239 GAICTICCIGCCCACCATCIACTICATCATCTIGACTGGCATAGTCGGCAATGGATT 20760 GATCTTCCTGCCCACCATCTATTTATCATCTTCTTGACTGGCATAGTGGGGCAATGGGTT 20940 cardecreacregractricgeaaarririangraadecrerecaratrarcaceer 479 CAACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCCAI 21000 CAACCTITACAGCAGTGITCTCATCCTGGCCTTCATCAGCCTGGACGCTACCTTGCCAT 119 CATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTC 179 TGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAG 299 GGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCT 359 GCACCTGTCAGTGGCTGACCTCCTCTTTGTCACACCTCCCCTTCTGGGCAGTTGATGC 419 CATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGT Length 190149; . 40067: contig of 40067 bp in length 40068 40167: gap of unknown length 40168 114660: contig of 74493 bp in length 114661 114760: gap of unknown length 114761 188186: contig of 73426 bp in length 188187 180286: gap of unknown length 188287 190149: contig of 1863 bp in length. Location/Qualifiers Indels DB 2; 69.1%; Score 473.4; DB 2; 90.8%; Pred. No. 6.3e-114; tive 0; Mismatches 51; /organism="Rattus norvegicus" /mol type="genomic DNA" /db\_xref="taxon:10116" /clone="CH230-108A24" Center clone name: CH230-108A24 Contact: hgsc-help@bcm.tmc.edu ------- Project Information Center project name: GXCR Query Match
Best Local Similarity 90.8
Matches 504; Conservative source FEATURES ORIGIN g ઠ В ઠ 셤 ò ద ò g g ò જે

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status norvegicus strain Holtzman chemokine receptor CXCR4 (Cxcr4)
Gene, complete cds.
AF452185
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Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Unpublished argulation of neuronal signaling and gp120 neurotoxicity
Unpublished argulation of neuronal signaling and gp120 neurotoxicity
2 (bases 1 to 1050)
Simen, A.A. and Miller, R.J.
Simen, A.A. and Miller, R.J.
Buriect Submission
Submitted (25-NOV-2001) Dept. Psychiatry, Yale University, New Haven, CT 06508, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCA 195
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Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       429. 430
/gene="Cxcr4"
/note="Compared to Wistar strain sequence presented in
GenBank Accession Number U90610"
/replace="cg"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 IGGAAATATACACTTCGGATAACTACTCCGAAGAAGTAGGGTCTGGAGACTATGACTATGACTCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match 69.0%; Score 472.4; DB 10; Length 1050; Best Local Similarity 92.4%; Pred. No. 8.9e-114; Matches 497; Conservative 0; Mismatches 41; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                     1. 1050, "Organism="Rattus norvegicus" | Organism="RRNA" | Anol type="mRNA" | Ab xref="taxon:10116" | Ask="female" | Lissue type="whole brain" | 1.1050
                                                                                                                                                                                                      Rattus norvegicus (Norway rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SSVSTESESSFHSS"
                                                                                                                                                                               AF452185.1 GI:17902280
                                                                      21180 CCAGGGGGACGCCAG 21194
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene="Cxcr4"
                                               659 CCAGGGGGACATCAG 673
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| organism="Rattus norvegicus"
| organism="Rattus norvegicus"
| wol_type="mRN4"
| strain="Wistar"
| db xref="taxon:10116"
| tissue_type="spleen"
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Molecular cloning of rat CXCR4
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Of Florida, 1600 SW Archer Rd., Gainesville, FL 32610-0267, USA
Location/Qualifiers
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Rattus norvegicus
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Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae,
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                                                                                                               0; Gaps
                                                                         Query Match 68.5%; Score 469.2; DB 10; Length 1050; Best Local Similarity 92.0%; Pred. No. 6.3e-113; Matches 495; Conservative 0; Mismatches 43; Indels 0;
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Copyright (c) 1993 - 2004 Compugen Ltd.
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Title: Perfect score: Sequence:

US-09-367-052-5 685 1 ccatcctaatacgactcact......gacatcagtcaggggatga 685

IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table:

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

	Description	Aav46370 Nucleic a	Aaz27611 Mouse CXC	Adb58421 Toxicity-	Adb53005 Primary r	Aad12801 Human neu	Aai65467 Nucleotid	Abs53992 DNA encod	Abs53750 DNA encod	Abv78039 Hypoxia-r	Abx08779 Angiogene	Abx74454 Human cDN	Abz68886 Nucleotid	Abz42642 Human CXC	Adc98645 Human CXC	Abz35348 Human gen	Adb47320 Human cDN	Aaa61656 Human CXC		Aaq29506 New plate		_	Human	Abn95645 Gene #214
	ID	AAV46370	AAZ27611	ADB58421	ADB53005	AAD12801	AA165467	ABS53992	ABS53750	ABV78039	ABX08779	ABX74454	ABZ68886	ABZ42642	ADC98645	ABZ35348	ADB47320	AAA61656	AAZ40014	AAQ29506	AAQ80521	AAQ99007	ABK83803	ABN95645
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	Aaz38553 Human CXC Abi97982 Non-endog Abd74938 Human CXC	CXCR4	0 Human 7 Human	Aaz27610 Human CXC Acc72707 Human can	Aaq66179 Seven tra Aav18357 Human RM3	Aaa91726 Human 7TM Abk54255 Human 7 t	Aax15882 cDNA enco Aaa34774 Human ade	Aaf20896 Human CCR Aah99951 CXCR4 qen	Abz96590 Human CCR Aca64841 Human CXC	Abs64793 CXCR4 rec
	AAZ38553 ABI97982 ABO74938			AAZ27610 ACC72707	AAQ66179 AAV18357	AAA91726 ABK54255	AAX15882 AAA34774	AAF20896 AAH99951	ABZ96590 ACA64841	ABS64793
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### ALIGNMENTS

Mouse; CXC chemokine receptor; pre-B cell line DW34; CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection; screening; inhibitor; AIDS; ds. Nucleic acid encoding a murine CXC chemokine receptor. 85 AAV46370 standard; cDNA to mRNA; 1877 Location/Qualifiers 120. .1199 /\*tag= a 20-NOV-1998 (first entry) AAV46370; Mus sp. AAV46370 

WO9835035-A1

97WO-JP000299 07-FEB-1997; 13-AUG-1998.

97WO-JP000299. 07-FEB-1997;

(SHIO ) SHIONOGI & CO LTD.

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Mouse CXC chemokine receptor binding to PBSF/SDF-1 pre-B cell stimulatory factor - is useful for screening of potential HIV infection and AIDS inhibitors. Yoshida Tachibana K, Iizasa H, Kishimoto T, Nagasawa T, Nakajima T, Yoshie O; WPI; 1998-447232/38. P-PSDB; AAW64778.

Claim 3; Page 39-42; 76pp; Japanese.

The present sequence encodes a murine CXC chemokine receptor which binds to the mouse CXC chemokine pre-B cell stimulatory factor PBSF950F-1. The nucleic acid is isolated from mouse pre-B cell line DW34. The receptor and cells expressing it can be used in the study and mapping of the

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mechanism of HIV infection and in screening of potential inhibitors HIV infection and the development of AIDS
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                                       Sequence 1877 BP; 469 A; 451 C; 406 G; 551 T; 0 U; 0 Other;
                                                                    Score 685; DB 2; Length 1
Pred. No. 5.8e-191;
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This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of contiaining as the active ingredient a substance with the use of these remedies

Sequence 1758 BP; 447 A; 414 C; 369 G; 528 T; 0 U; 0 Other;

CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.

Disclosure; Page 50-51; 63pp; Japanese.

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Tachibana

Kishimoto T, Nagasawa T,

WPI; 1999-591042/50 P-PSDB; AAY39994.

(CHUS ) CHUGAI SEIYAKU (KISH/) KISHIMOTO T.

99WO-JP001448. 98JP-00095448.

23-MAR-1999; 24-MAR-1998;

WO9948528-A1 30-SEP-1999.

239 120 299 180 359 240 419 479 360 539 599 480 300 420 GGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGC 659 9 181 GTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGGAGCATGACGACAAGTACCGGCTG 120 ATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCT 1 ArggaAccgarcagrangrangrararacactrcranactacrcrgaagaagraggract GGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGG 240 ATCTTCCTGCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTG 241 CACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCC 61 GGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGG 121 Arctrocroccaccarcracrrcarcarcrrcardadoroscanastrosarro CACCIGICAGIGGCIGACCICCICITIGICAICACACICCCCITICIGGGCAGITGAIGCC 361 AACCICTACAGCAGCGTTCTCATCCTGGCCTTCACCAGCCTGGACCGGTACCTCGCATT GTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTG ATGGCTGACTGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTC AACCICIACAGCAGCGIICICAICCIGGCCIICAICAGCCIGGACCGGIACCICGCCAII Gaps ; 0 Length 1758; 0; Indels 82.6%; Score 566; DB 2; Le 100.0%; Pred. No. 6.2e-156; ative 0; Mismatches 0; al Similarity 100. 566; Conservative 180 300 360 420 301 480 540 421 009 Query Match Matches g ઠે ઠે 셤 ઠ ద δ 셤 8 a õ a δ ద ઠ 엄 ઠે

CXCR4; mouse; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss.

Predicting a toxic effect of a compound, useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity assays, comprises preparing gene expression profile of tissue or cells exposed to the compound. 481 GGCGTCTGGATCCCACCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGC 540 Castle A, Elashoff Toxic, toxin, gene expression profile, hepatotoxicity, liver, drug screening; toxicity assay, ds. Porter M, Johnson K, Higgs B, Claim 1; SEQ ID NO 3447; 1156pp; English 685 541 CAGGGGGACATCAGTCAGGGGGATGA 566 660 CAGGGGGACATCAGTCAGGGGGGATGA Toxicity-related gene, SEQ ID 3447 ADB58421 standard; DNA; 1050 BP ; 2002US-00060087. ; 2002US-0364045P. ; 2002US-0364055P. ; 2002US-0436643P. 31-JAN-2003; 2003WO-US003194 (first entry) (GENE-) GENE LOGIC INC. WPI; 2003-689530/65 WO2003064624-A2 31-JAN-2002; 15-MAR-2002; 15-MAR-2002; 30-DEC-2002; Mendrick D, 04-DEC-2003 37-AUG-2003 ADB58421; RESULT 3
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The present invention relates to a method for predicting a toxic effect of a compound. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising SEQ ID 1-4925, where differential expression of the gene indicates at least one toxic effect. The method is useful for predicting at least one toxic effect. The method is useful for predicting to the progression of a toxic effect. The compound, identifying an agent that modulates the onset or progression of a toxic response, predicting the cellular pathways that a compound modulates in a cell, and identifying an agent that modulates at compound modulates in a cell, and identifying an agent that modulates at least one activity of a protein. The method and compositions of the lessent invention using a database of genes having liver toxin-induced differential expression, are useful in identifying toxicity markers in liver tissues or cells for drug screening and toxicity assays. Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIPO can they wipo int/published\_pct\_sequences.

Sequence 1050 BP; 231 A; 313 C; 247 G; 259 T; 0 U; 0 Other;

Query Match 68.5%; Score 469.2; DB 9; Length 1050; Best Local Similarity 92.0%; Pred. No. 1.6e-127; Matches 495; Conservative 0; Mismatches 43; Indels 0;

136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA 195

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555 435 GICAAAGGCCAAGAAACIIGCIIGAAAAGGCAGICIAIGIGGGGGGGTCIGGAICCCAG 615 181 375 241 495 302 TIGGGAAATTTTTATGTAAGCTGTGCATATCATCTACACGTCAACCTTTACAGCAGTG 361 GCCAGAGCGCGAGGAAGCTGCTGGCTGAAAAGGCCGTCTATGTGGGGTGTCTGGATCCCCG 481 diagnostic marker; 121 301 673 482 CCTCCTCCTGACTATCCCTGACATCATCTTCGCCGATGTCAGCCAGGGGGACGGCAG 539 Primary rat hepatocyte toxicity modelling related gene SEQ ID NO:3547. 242 ACCTCCTCTTGTCATCACACTCCCCTTCTGGGCAGTGGACGCCATGGCTGACTGGTACT TGGAAATATACACTTCGGATAACTACTCCGAAGAAGTAGGGTCTGGAGACTATGACTCCA GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG TTGGGAAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCGG TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCTCCACGCCAACA ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA TCTACTICATCATCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG 376 ACCICCICITIGICALCACTCCCCTICTGGGCAGTTGATGCCATGGCTGATTGCTACT CCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGGGACATCAG toxic effect, gene expression profile; hepatotoxicity, toxicity marker; toxicity progression; drug screening; primary rat hepatocyte toxicity modelling; gene; ds. ВР 04-FEB-2002; 2002US-0353171P.
08-APR-2002; 2002US-0363534P.
08-APR-2002; 2002US-037024BF.
10-APR-2002; 2002US-0371134P.
11-APR-2002; 2002US-0371134P.
11-APR-2002; 2002US-0371135P.
11-APR-2002; 2002US-0371413P.
11-APR-2002; 2002US-0371413P.
11-APR-2002; 2002US-0371413P.
11-APR-2002; 2002US-0371413P.
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11-APR-2002; 2002US-0371413P.
11-APR-2002; 2002US-0371413P. ADB53005 standard; DNA; 1050 04-FEB-2003; 2003WO-US003482 04-DEC-2003 (first entry) Rattus norvegicus WO2003065993-A2. 14-AUG-2003 ADB53005; 316 182 496 616 196 62 556 436 556 422 RESULT 4 ADB53005 ò 셤 ద ద ò 원 g 엄 ઠે 셤 ઠ 8 à ò 8

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2002US-0407688P Porter M, LOGIC INC 04-SEP-2002; 28-JAN-2003; (GENE-) GENE mean values. Mendrick D, Elashoff M; 

Human; neuropeptide Y; NPY; bone disease; bone mass; gene therapy; cerebrospinal fluid; CSF; inositol phosphate; IP; Paget's disease; facture; extracellular signal-regulated kinase; ERK; osteoporosis; osteopenia; bone metastasis; neurotransmitter; osteogenic; NPY Y3 receptor; ds.

Human neuropeptide Y (NPY) Y3 receptor DNA

16-OCT-2001 (first entry)

AAD12801;

Orr M;

Castle A,

'n Higgs

X,

Johnson

AAD12801 standard; DNA; 1679 BP

Determining if a compound induces a toxic effect on a tissue or cell, for identifying hepatotoxic compounds, comprises comparing a gene expression profile of a tissue or cell sample to a database of Tox mean and non-Tox WPI; 2003-731472/69.

The present invention describes a method for determining whether a compound induces a toxic effect on a tissue or cell. The method comprises preparing a gene expression profile of a tissue or cell sample exposed to the compound, and comparing the gene expression profile to a database comprising data or information on the Tox mean and non-Tox mean value. The method is useful for predicting or identifying at least one toxic effect, particularly hepatotoxicity, of a test or unknown compound. The genes listed in the specification are useful as diagnostic or toxicity markers for the prediction or identification of the physiological state of tissue or cell sample that has been exposed to a compound, or to identify or predict the toxic effects of a compound or an agent. These may also be used as markers for monitoring toxicity progression or for drug screening. The present sequence represents a primary rat hepatocyte toxicity modelling related gene sequence from the present invention. Claim 44; SEQ ID NO 3547; 874pp; English.

Sequence 1050 BP; 231 A; 313 C; 247 G; 259 T; 0 U; 0 Other;

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255 121 315 181 375 241 ACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT 435 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA 195 TIGGGAAATITITIGIGIAAGGCIGICCATAICAICTACACCIGICAACCICTACAGCAGCG 495 TIGGGAAATITITAIGIAAGGCIGIGCATAICAICTACACCGICAACCITIACAGCAGIG 361 TTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA 555 rrerearceredecerreareaceredaceeracerrecearreredecaceaceaea 421 GTCAAAGGCCAAGGAAACTGCTGGTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAG 615 GCCAGAGCGCGAGGAAGCTGCTGAAAAAGGCCGTCTATGTGGTGTCTGGATCCCCG 481 61 CCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGACATCAG 673 ACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAGGATCTTCCTGCCCACCA GTTACCAGAAGAAGCTGAGGAGCATGACAAGTACCGGCTGCACCTGTCCGTGGCTG ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG 122 renartrarcarenterreacrescarastesecarescarescrissirarecresiones GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTG 0; Gaps CCCTCCTCACTATCCCTGACATCATCTTCGCCGATGTCAGCCAGGGGAAGGCAG 68.5%; Score 469.2; DB 9; Length 1050; 92.0%; Pred. No. 1.6e-127; ive 0; Mismatches 43; Indels 0; Best Local Similarity 92.0 Matches 495; Conservative ~ 196 62 256 182 376 242 436 496 362 422 136 316 302 556 919 Query Match ద ð g à g 원 g g ૪ ద g ò ઠ ò ò ઠ ò

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The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering to a mammal a compound that lowers the level of neuropeptide Y (NPY) in the serum or cerebrospinal fluid (GSF) or a compound that lowers the level of inositol phosphare (IP) or extracellular signal-regulated kinase (ERK). The method is specifically used to treat (including by gene therapy) or prevent osteoporosis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in sequence is a human NPY % receptor DNA 103 Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid. 44 GCAGGIGCAGGIAGCAGIGACCCICIGAGGCGIITIGGIGCICCGGIAACCACCACGGCIG Gaps /\*tag= a /product= "Human neuropeptide Y (NPY) Y3 receptor" ري د Length 1679; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; Score 446.8; DB 4; Length Pred. No. 7.7e-121; 0; Mismatches 102; Indels Example 7; Page 84-85; 102pp; English. Location/Qualifiers 89. .1147 (BAYU ) BAYLOR COLLEGE MEDICINE (AMLI/) AMLING M. ď 22-JAN-2001; 2001WO-US002040. Ducy 20-JAN-2000; 2000US-00489872. 65.2%; 83.0%; Best Local Similarity 83.0 Matches 523; Conservative Amling M, Karsenty G, WPI; 2001-488709/53 P-PSDB; AAE06690 WO200153477-A1 Homo sapiens 26-JUL-2001 Query Match 

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The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concomitant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans denhancement of HIV entry into a T cell or macrophage facilitated by infection. The present sequence represents a human polynucleotide, which is used in the course of the invention

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stromal cell-derived factor laipha; angiogenesis, atherosclerosis, restenciosis, isolaemic stroke; spinal cord injury; infection, ulcer; human immunodeficiency virus; HIV, acquired immunodeficiency syndrome; AIDS; pain, cancer; benign prostatic hypertrophy, diabetes; obesity; anorexis, bullimia, asthma; Parkinson's disease; acute heart failure; hypotension; hypotension; urinary retention; osteoporosis; stroke, anginal pectoris; myocardial infarction; benign prostatic hypertrophy; migraln, vomiting; psychocic disorder; neurological disorder; anxiety; schizophrenia; dyskinesia; Huntingdon's disease; restencis; inflammatory disease; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; atthritis; diabetic retinopathy; congestive heart failure; cardiac remodeling; angiogenic disease; condestive heart failure; cardiac remodeling; angiogenic diseases; solid tumour; Kaposi Sarcoma; human; gene; ss.
             chemokine receptor 4; CXCR4; chemotaxis induction;
                                                                                                                                                                                                                                                                                                                                                                                                                         (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                           17-SEP-2001; 2001US-00953692
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/note= "CXC chemokine receptor 4"

98US-0093596P. 99US-00358624.

"CXCR4"

/\*tag= a /product=

Location/Qualifiers 899. .1147

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha. P-PSDB; ABG32977

Disclosure, Fig 1; 26pp; English.

The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stromal cell-derived factor lalpha (SDF1a). The method is used for trimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury. Inhibition of this process is useful in treatment and pacteria, fungi, protozca or viruses such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), pain, cancer and bening prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's disease, acute heart failure, hypotension, hypertrophy, mycardial infarction, stroke, ulcers, benign prostatic hypertrophy, chizophrenia, womiting, psychotic and neurological disorders (e.g. anxiety, schizophrenia) and dyskinesias (e.g. Huntingdon's disease), inflammatory diseases, theumatoid arthitis, diabetic retinopathy inflammatory bowel diseases, theumatoid arthitis, diabetic retinopathy inflammatory bowel heart failure, cardiac remodeling, angioganic diseases, solid tumours, and shoosi Sarcoma, This sequence encodes the human CXC chemokine receptor 4 (CXCR4) polynucleotide

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

Gaps 5 65.2%; Score 446.8; DB 6; Length 1679; llarity 83.0%; Pred. No. 7.7e-121; Conservative 0; Mismatches 102; Indels 5; Similarity Query Match Best Local Simil Matches 523; GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG 103

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US2002107196-A1.

08-AUG-2002

98US-0093596P. 99US-00358624. 2001US-00953717

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha. Disclosure, Fig 1, 26pp, English. (SMIK ) SMITHKLINE BEECHAM CORP WPI; 2002-706230/76. P-PSDB; ABG33065. 17-SEP-2001; 21-JUL-1998; 21-JUL-1999; Gupta SK; 

The present invention relates to a new method for inducing chemotaxis of endothelial cells (EC). The method of the invention involves treatment with a strondal cell-farived factor is (SDF1alpia). The method is used for treating EC chemotaxis, and thus angiogenesis, and is used for treating atherosclerosis, restenosis, ischaemic stroke and spinal cord injury, while inhibition of this process is useful in treatment and prevention of a very wide range of diseases, e.g. infection (By bacteria, fungi, protozoa or viruses), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bullina, asthma, allergies, carter heart failure, hypotension, hypertension, urinary retention, osteoporosis, angina pectoris, myocardial infarction, stroke, ulcers, migratne, vomiting, psychotic and neurological disorders cand dyskinesias, inflammatory disoaces, theumatoid arthritis diabetic retinopathy, inflammatory bowel disease, atherosclerosis, restenosis, and dyskinesias, solid tumours, and Kaposi sarcoma. The present nucleic acid sequence encodes the human CXCR4 protein of the invention.

Sequence 1679 BP; 407 A; 399 C; 367 G; 504 T; 0 U; 2 Other;

103 163 126 223 186 283 246 343 306 403 366 7.1 127 CGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAA 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGACG 104 TAGAGGGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 187 recraartreaaraaarcrecreccaccarcracrecarcarcricarriraacrescar 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGTAAGGAGCATGAC 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAGAAGAAGAAGAAGAAGAAGAA 12 descendendennacian de a contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra del la contra del la contra del la contra del la contra de la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra del la contra de 72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT Gaps 'n Length 1679; Indels Query Match 65.2%; Score 446.8; DB 6; Best Local Similarity 83.0%; Pred. No. 7.7e-121; Matches 523; Conservative 0; Mismatches 102; 8 g 8 g ò 쉱 ò a à ठे

546 643 909 426 523 486 583 463 Cytostatic; vasotropic; tranquiliser; antiatherosclerotic; gene therapy antiinflammatory; vulnerary; gynecological; ophthalmological; vaccine; hypoxia; tumourigenesis; angiogenesis; apoptocis; cancer; ischaemic condition; reperfusion injury; retinopathy; neonatal stress; preeclapmaia; atherosclerosis; inflammatory condition; wound healing; inflammation; erythropoiesis; hair loss; human; gene; ds. 367 CIGGGCAGITGATGCCGIGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCACTATACCTGACTTCAT 464 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA Aypoxía-regulated protein coding sequence #59. 673 636 CTTTGCCGACGTCAGCCAGGGGGACATCAG CTTTGCCAACGTCAGTGAGGCAGATGACAG ABV78039 standard; DNA; 1679 BP 12-NOV-2002 (first entry) 524 487 584 547 644 607 ABV78039; 404 셤 g g ò ઠે 셤 ò δ ရှ

Harris RA; Ward NR, Krige D, Kingsman SM, Mundy CR, WPI; 2002-627238/67 White J, N Rayner WN;

(OXFO-) OXFORD BIOMEDICA UK LTD.

08-DEC-2000; 2000GB-00030076. 08-FEB-2001; 2001GB-00003156. 25-OCT-2001; 2001GB-00025666.

10-DEC-2001; 2001WO-GB005458

WO200246465-A2. 13-JUN-2002

Ношо

Identifying a gene involved in disease for treating hypoxia-regulated conditions, comprises comparing the transcriptome/proteome of two cell types under different conditions and identifying a differentially regulated gene.

Claim 37; Page 378; 538pp; English.

ש מ The present invention relates to methods for identifying genes and proteins that are implicated in a specific disease or physiological condition. The method comprises comparing the transcriptome/proteome of a specialised cell type implicated in a disease or condition with that of a second specialised cell type, under two experimental conditions, and identifying a gene that is differentially regulated in the two specialised cell types under experimental conditions. ABV77873-ABV78116 and ABP65061-ABP65257 were identified using the methods of the invention. The coding sequences and proteins are useful for treating a disease in a us-09-367-052-5.rng

patient, for manufacture of a medicament for treating hypoxia-regulated conditions, and for regulating tumourigenesis, angiogenesis, apoptosis, biological response to hypoxia conditions, or hypoxic-associated pathology in a patient. The coding sequences and proteins are also useful for monitoring the therapeutic treatment of a disease or physiological condition, such as cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, preeclapmsia, atherosclerosis, inflammatory conditions, wound healing, inflammation, erythropoiesis or hair loss 88888888888888

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

Gaps ري در Length 1679; Indels Score 446.8; DB 6; Pred. No. 7.7e-121; 0; Mismatches 102; Query Match
Best Local Similarity 83.0%;
Matches 523; Conservative

44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103 71 GOGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG

104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163

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CTTTGCCGACGTCAGCCAGGGGGACATCAG 644 607

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ABX08779 standard; cDNA; 1679 RESULT 10
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KW Huma
KW angi
KW ss.

ABX08779

Angiogenesis-associated human polynucleotide sequence

Human, angiogenesis-associated transcript, angiogenesis; angiogenesis-associated disease, cancer, cytostatic, gene therapy; gene,

306

247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAACTGAAAC

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The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a polynuclectide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polynuclectide sequences given in the specification. These angiogenesis-associated polynuclectide sequences comprise that exhibit changes in expression levels as a function of time in tissue undergoing comprises that exhibit changes in expression. Levels as a function of time in tissue undergoing in angiogenesis. The method and the polynuclectide sequences of the invention are useful for disagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polynuclectide sequences are also useful in the gene therapy of such disorders. The majogenesis-associated for therapeutic and prophylactic immunisation. ABX08739-ABX08853 represent angiogenesis-associated by the polynuclectide sequences. Detecting angiogenesis-associated transcript in a cell for diagnosing treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; z Example 2; Page 217-218; 291pp; English. Aziz Watson SR, 22-PEE-2001, 2001US-00791390. 19-APR-2001, 2001US-0285475P 03-AUG-2001, 2001US-038025P 13-NOV-2001, 2001US-0350666P 29-NOV-2001, 2001US-0334244P (EOSB-) EOS BIOTECHNOLOGY INC 2002WO-US004915 undergoing angiogenesis Glynne R, 2003-040681/03. P-PSDB; ABU03495 WO200279492-A2 14-FEB-2002; Homo sapiens Murray R, sednences 

103 163 126 223 186 283 246 343 71 12 gegecageadearacearaceareacecearacearearearearearearearearea 127 CGAGGAAATGGGCTCAGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAA 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT 187 récraártricaaraaarichrecheccaccarcracrecarcarcrichracrescar 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 72 gagaaccagcegriaccarega-----geegarcagraracacricagaraacac TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGAC Gaps ŝ 65.2%; Score 446.8; DB 7; Length 1679; 83.0%; Pred. No. 7.7e-121; ative 0; Mismatches 102; Indels 5; al Similarity 83.0 523; Conservative 164 Query Match Local Matches 유 ò qq ò 원 ò 유 ठे

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us-09-36/-052-5.rng

expression profiling of tumour and normal tissues. The present sequence represents a human cDNA sequence up-regulated in CC-RCC patients

403 366 463 426 523 486 583 546 643 909 584 AAAGGCAGTCTATGTGGGCGTCTCGATCCCAGCCTCCTCTGACTATACTGACTTCAT 547 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCTCCTGCTGACTATTCCCGACTTCAT 367 CIGGGCAGTIGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA 427 IGICAICTACACAGTCAACCTCTACAGCAGIGICCTCATCCTGGCCTTCATCAGTCTGGA GGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCTT CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAAGGCTGTCCA 464 IATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 607 CTTTGCCAACGTCAGTGAGGCAGATGACAG 636 673 644 CTTTGCCGACGTCAGCCAGGGGGACATCAG 307 524 404 g ò q 8 g ò ద 음 셤 ે Ś

ABX74454 standard; cDNA; 1679

(first entry) 21-MAR-2003

Human cDNA sequence #26 up-regulated in CC-RCC patients.

Human; microarray; solid surface; immobilised probe; CC-RCC; differential expression profile; aggressive CC-RCC tumour type; olear cell renal carcinoma; gene expression profiling; tumour tissue; gene; ss.

sapiens Homo

WO200279411-A2

10-OCT-2002

29-MAR-2002; 2002WO-US009576

29-MAR-2001; 2001US-0279411P.

(VAND-) VAN ANDEL INST

Takashi M; Teh BT, Haab B, Rhodes D,

WPI; 2003-040679/03.

New microarray, comprising a matrix of cDNA probe from a set of probes immobilized to a solid surface in predetermined order, useful in the prognosis of patients with clear cell renal carcinoma.

Claim 35; Page 132-133; 179pp; English.

The present invention relates to a microarray comprising a matrix of at least one CDNA probe from a set of probes immobilised to a solid surface in a predetermined order, where a row of pixels corresponds to replicates of one distinct probe from the set. The probes are complementary to mucleic acid sequences that are expressed differentially in aggressive as compared to non-aggressive types of clear cell renal carcinoma (CC-RCC) and that hybridise to the probes under high stringency conditions. The microarray is useful for the prognosis of patients with CC-RCC, wherein aggressive and non-aggressive CC-RCC tumour types are characterised by differential expression profiles of genes that hybridise with one or more probes immobilised on the microarray. The arrays are useful for gene 

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Best Local Similarity 83.0%; Pred. No. 7.7e-121;
Matches 523; Conservative 0; Mismatches 102;
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487 원 à à ď Modulating viral infection of a cell, for treating or preventing respiratory virus infections, bronchitis, pneumonia or atchma, by modulating a binding interaction between a cell chemokine-receptor and surface protein of the virus. Disclosure; Page 117-119; 120pp; English. /product= "CXCR4" 12-AUG-2002; 2002WO-CA001248 10-AUG-2001; 2001US-0311088P (TOPI-) TOPIGEN PHARM INC 2003-256541/25. Renzi P, Zemzoumi P-PSDB; ABP97733 WO2003014153-A2 

The present sequence encodes human chemokine receptor CXCR4. The specification describes a method for modulating viral infection of a cell. the method comprises modulating a binding interaction between a cell chemokine-receptor and a surface protein of the virus. The proviso is that the cell chemokine-receptor is not CXICR1 and that the virus is not HIV. The method is useful for treating or preventing respiratory virus infection in vertebrates, more particularly respiratory syncytial virus (RSV) infections, and related diseases, e.g. bronchiolitis, bronchiolitis,

223 246 343 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 103 126 127 ccaccanaricocricacocorcrarcacreccarcandadorecercierricocricadadada 186 283 403 523 TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA 486 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163 GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTTTTGTCATCACGCTTCCCTT 366 CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA 463 cresecastrearecerescaaacresractricesaacrirecrarecaasesaacea 426 7 GCGCAGCAGGAAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA recraarricaaraaarcriccreccaccarcracreccarcarcrictraacreecar GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCAT AGTCGCCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGCTAAGGAGCATGAC TATCATCTACACTGTCAACCTCTACAGCGGTTCTCATCCTGGCCTTCATCAGCCTGGA Gaps ņ. Length 1679; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; 65.2%; Score 446.8; DB 7; Length 83.0%; Pred. No. 7.7e-121; tive 0; Mismatches 102; Indels DB 7; Matches 523; Conservative Query Match Best Local Similarity 164 44 12 72 224 187 284 344 307 367 247 404 464 427

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G protein-coupled receptor; GPCR; antigenic peptide; gene therapy; grotein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; call regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; osteoporis; cardiomyopathy; inflammation; Crohn; disease; diabetes; graft versus host disease; hardman, sidsease; miltiple sclerosis; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; hypertension; epilepsy; asthma; tuberculosis; obesity; nausea; hypertension; proteinsion; renal disorder; rheumatoid arthritis; trauma; ulcer; gene; ds. New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or 546 909 CGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGA 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCCTGACTATACCTGACTTCAT Human CXC chemokine receptor 4 nucleotide SEQ ID NO:75. CTTTGCCGACGTCAGCCAGGGGACATCAG 673 Disclosure; Fig 1; 523pp; English. (LIFE-) LIFESPAN BIOSCIENCES INC. 644

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acid acids. Also described: (1) am assay for the detection of a particular G protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (I) can be used as GPCR modulators and in artibody against a particular GPCR, and in the production of specific antibody against a particular GPCR, and in the production of specific antibodies. The peptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for treating immune-related diseases, immunological-related cill proliferative diseases, or autoimmune diseases, immunological-related cell proliferative atherosclerosis, bacterial, fungal, protozoan or viral infections,

osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypetrension, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis. ABZ42523 to ABZ42569 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the exemplification of the present invention 886666666668888888

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

AGICGGCAAIGGAIIGGIGAICCIGGICAIGGGIIACCAGAAGAAGCIAAGGAGCAIGAC CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA AAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT 547 AAAGGIGGICIAIGIIGGCGICIGGAICCCIGCCCCCCIGCIGACIAIICCCGACIICAI 44 GCAGGIGCAGGIAGCAGIGACCCICTGAGGCGITTGGIGCICCGGIAACCACCACGGCIG 12 degecaderadradaaaargadeededaageeeridaargeeredaaradeekadeearerd 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC TGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 127 cgaggaaniegecroagggachangachoogaagangaagaacconstricostgaagaaa CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAGCATGAC GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACCCCTT GGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTT CTGGGCAGTTGATGCCATGGCTGACTTGGGAAATTTTTGTGTAAGGCTGTCCA Gaps ., DB 7; Length 1679; Score 446.8; DB 7; Length Pred. No. 7.7e-121; 0; Mismatches 102; Indels CTTTGCCGACGTCAGCCAGGGGGACATCAG 673 criridecaacereagraageaagaraada 636 Match 65.2%; Local Similarity 83.0%; nes 523; Conservative 224 187 284 344 307 367 464 487 584 644 164 404 427 524 607 Query Match Best Loca Matches 셤 셤 ò a ò 셤 ò a 8 g ò g 8 g ò B 8 8 ò

ADC98645 standard; cDNA; 1679 (first entry) 

Human CXC chemokine receptor 4 (CXCR4)-encoding cDNA.

Human; CXC chemokine receptor 4; CXCR4; CXCR4 inhibitor;

small cell lung cancer; SCLC; cellular adhesion; cellular proliferation; metastasis; motility; morphological change; drug screening; monitoring; cytostatic; gene; ss.

Homo sapiens

/\*tag= a /product= "Human CXCR4" Location/Qualifiers 89. .1147 /\*tag= a

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20-MAR-2003; 2003WO-EP002916

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163 126 223 186 283 246 343 306 403 366 463 426 523 486 583

20-MAR-2002; 2002US-0366370P

(DAND ) DANA FARBER (NOVS ) NOVARTIS AG.

Salgia R;

WPI; 2003-757037/71. P-PSDB; ADC98646.

Use of a CXC chemokine receptor 4 (CXCR4) inhibitor, for modulating cellular adhesion or inhibiting proliferation, movement, or morphological change in a small cell lung cancer (SCLC) cell population, or for treating a subject having SCLC.

The invention relates to methods and compositions for inhibiting small cell lung cancer (SCLC) proliferation and metastasis through modulation of the activity or expression of CXC chemokine receptor 4 (CXCR4), and optionally, that of the tyrosine kinase receptor - 4 (CXCR4), and optionally, that of the tyrosine kinase receptor - 4 (CXCR4), and optionally, that of the tyrosine kinase receptor - 4 (CXCR4), and optionally, that of the tyrosine kinase receptor - 4 (CXCR4) is a CXCR4 inhibitor modulates cellular adhesion and inhibits cellular compulation. The invention is based on the finding that CXCR4 is ubjquitously expressed, and --Kit is variably expressed, in SCLC cells. The invention also discloses methods of screening for CXCR4 and is therefore amenable to CXCR4 inhibitor therapy determining whether a sample of lung cancer cells expresses CXCR4 and is therefore amenable to treatment with a combination of a CXCR4 inhibitor and a --Kit inhibitor combination of a CXCR4 inhibitor and a c-Kit inhibitor, and method of assessing whether CXCR4 inhibitor therapy or CXCR4 inhibitor combination therapy should be continued, by determining CXCR4 (and optionally --Kit) activity in two or more the methods of the invention are useful for treating SCLC, for screening cfor agents for the treatment of SCLC, for determining whether a SCLC from individual patients is suitable for treatment with agents of the invention, and for determining whether such treatment is effective and should be continued. The present sequence represents cDNA encoding human companies the continued of the invention of the invention. 

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72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 126

164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA 223

Disclosure; SEQ ID NO 1; 78pp; English.

103 163 44 gcaggraggraggragraaccercragaggcgrrragraggraggraggraaccaccacaggrag 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC Gaps ŝ 65.2%; Score 446.8; DB 9; Length 1679; 83.0%; Pred. No. 7.7e-121; ative 0; Mismatches 102; Indels 5; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; Best Local Similarity 83.0 Matches 523; Conservative

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CCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGAAGGCAAGGAAGCTGTTGGCTGA 546
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ABZ35348

(first entry) 05-FEB-2003 Human, artery, endothelium, umbilical, vein, aorta, pulmonary artery, bronchial epithelium, prostate, muscle, lung fibroblast, osteoblast, tumour, microarray, genome mapping, antibiotic, antiviral, antifungal,

Human gene expression profile polynucleotide SEQ ID NO 459.

expression; gene, ss. gene

Homo sapiens

WO200274979-A2

26-SEP-2002.

20-MAR-2002; 2002WO-US008456.

20-MAR-2001; 2001US-0276947P.

(ORTH ) ORTHO CLINICAL DIAGNOSTICS INC.

Wan J, Wang Y;

WPI; 2002-740862/80

New gene expression profile generated from primary, endothelial, epithelial, and muscle cell types, useful for identifying disease pathologies involving alterations of gene expression, e.g. cancer.

Disclosure; Page 609; 850pp; English

The invention relates to a gene expression profile comprising one or more genes (AB234889-AB235692) and generated from a cell type. The coll type of a coronary artery artery artery andothelium, umbilical artery or vein endothelium, accordant plant artery and artery accordant artery artery conditions and artery and artery artery endothelium, promoted artery artery endothelium, promoted artery artery artery endothelium, promoted artery artery artery artery and a airway epithelium, renal epithelium, renal proximal tubule epithelium, capithelium, renal epithelium, renal proximal tubule epithelium, ambilical artery smooth muscle, dermal fibroblast, neural progenitor cells, skeletal muscle, astrocytes, cornial smooth muscle, neural progenitor cells, skeletal muscle, astrocytes, cornial smooth muscle, uterine smooth muscle, lung fibroblast, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, coronary artery smooth muscle, action and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and artery and prognosis. The gene or protein expression profile and artery and prognosis. The gene or protein expression profile arterations of gene expression. The assessment of expression profile arteration with respect to tumour type and stage, treatment methods, and prognosis. The gene or protein expression profile artery and physical mapping of genomes, DNA sequencing, genetic or medical diagnosis, genotyping of organisms, confirming cell or tissue artifundal agents antifungal agents 

Sequence 1711 BP; 423 A; 407 C; 373 G; 507 T; 0 U; 1 Other;

106 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACCACGGCTG 47 GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTG . . Length 1711; Indels . Match
Local Similarity 83.0%; Pred. No. 7.8e-121;
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536 AAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATC
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Patent No. 6429308
GENERAL INFORMATION:
APPLICANT: GOTO, Takeshi
APPLICANT: GOTO, Takeshi
APPLICANT: SHIMADA, Takashi
ITILE OF INVENTION: HIV Infection Inhibitors
FILE REFERENCE:
CURRENT APPLICANTION NUMBER: US/09/582,224A
CURRENT FILING DATE: 2000-07-21
PRIOR APPLICATION NUMBER: PCT/JP99/06534
FRIOR FILING DATE: 1999/11/24
NUMBER OF SOOF IN OF SEQ ID NOS: 5
SOFTWARE: Microsoft Word
SEQ ID NO 5
LENGTH: 1664
TYPE: DNA
PRIOR THISIGNAL APPLICATION SECOND OF SEQ ID NO 5
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; OTHER INFORMATION: CDNA of CXCR4
US-09-582-224A-5
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US-09-582-224A-5
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WERL INFORMATION: APPLICANT: COCKS, Benjamin G. APPLICANT: COCKS, Benjamin G. APPLICANT: Susan G. Stuart APPLICANT: Susan G. Stuart APPLICANT: Susan G. Stuart APPLICANT: Susan G. Stuart APPLICANT: Susan G. Stuart APPLICANT: Susan G. Stuart APPLICANT: Susan G. Stuart APPLICANT: SEQUENCES: 1508 CORRESPONDENCES: 1508 CONFUTER: BALO ALTO STATE: CALIFORNIA COMPUTER: LEM PC COMPATION MEDIUM TYPE: Floppy disk COMPUTER: LEM PC COMPATION MEDIUM TYPE: Floppy disk COMPUTER: LEM PC COMPATION MEDIUM TYPE: Floppy disk COMPUTER: LEM PC COMPATION MEDIUM TYPE: Floppy disk COMPUTER: LEM PC COMPATION MEDIUM TYPE: HERMITH CLASSIFICATION NUMBER: US/09/023 FILING DATE: HERMITH APPLICATION NUMBER: PA-C FILING DATE: CLASSIFICATION NUMBER: SEQ ID NO: 1213: TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION TELECHARACTERICION THERRAX: (650) 845-4166 STRANDEDNESS: single TYPE: MUCIEC CLORE: LENGTH: 11064 base pairs TYPE: MUCIEC CLORE: LENGTH: 11064 TOPOLOGY: 1inear LIMBURAY: GENBANK CLORE: 9219868 CLORE: 2013	65.1%; 83.0%; tive
THIUSE HILLS OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF THE REPORT OF	65. larity 83. Conservative
GENERAL INFORMATION:  APPLICANT: SUSAN G. STUBATE  APPLICANT: SUSAN G. STUBATE  APPLICANT: SUSAN G. STUBATE  APPLICANT: SUSAN G. STUBATE  APPLICANT: SUSAN G. STUBATE  APPLICANT: SUSAN G. STUBATE  TITLE OF INVENTION: EXPRESSION  NUMBER OF SEQUENCES: 1508  CORRESPONDENCE ADDRESS:  ADDRESSER: INCYTE PHARMACEUTICAL  STREET: 3174 PORTER DRIVE  CITY: PALO ALTO  STREET: 3174 PORTER DRIVE  CITY: PALO ALTO  STREET: 194304  COMPUTER READBLE FORM:  MEDIUM TYPE: Floppy disk  COMPUTER READBLE FORM:  MEDIUM TYPE: FLOPPY disk  COMPUTER READBLE FORM:  MEDIUM TYPE: HEREWITH  OPFILING DATE:  FLING DATE: HEREWITH  CLASSIFICATION DATA:  APPLICATION NUMBER: 19/09/023,65  FILING DATE:  CLASSIFICATION:  APPLICATION NUMBER: 37,071  REFERENCE/DOCKET NUMBER: 9A-0001  TELECOMMUNICATION INFORMATION:  NAMME: ZELIET, ARTONICS:  LENGTH: 1664 base pairs  TELEBRAX: (650) 855-0555  TELEFAX: (650) 845-4166  STRANDEDNESS: SINGLE  TOPOLOGY: linear  IMMEDIATE GENERAL  IMMEDIATE GENERAL  TOPOLOGY: linear  IMMEDIATE GENERAL  IMMEDIATE GENERAL  IMMEDIATE GENERAL  IMMEDIATE GENERAL  IMMEDIATE GENERAL  IMMEDIATE GENERAL  CLONE: G108848MK  CLONE: 9219868	Query Match Best Local Similarity Matches 522; Conser
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COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/202,056
FILING DATE: Z5-FEB-1994
CLASSIFICATION: 436
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/677211
FILING DATE: 29-MAR-1991
ATTORNEY/AGENT INFORMATION:
NAME: Love, Richard B.
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P3
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TOPOLOGY: linear

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                                       Length 1737
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                                       Query Match 64.1%; Score 439.2; DB 1; Best Local Similarity 82.7%; Pred. No. 1.4e-114; Matches 516; Conservative 0; Mismatches 103;
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US-08-076-093A-3
; Sequence 3, Application US/08076093A
; Petent No. 5543503
; GENERAL INFORMATION:
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US-08-202-056-4
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Pred. No. 1.4e-114;
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| Patent No. 5776457
| GENERAL INFORMATION:
| APPLICANT: Chuntharapai, Anan APPLICANT: Lee, James APPLICANT: Lee, James APPLICANT: Hebert, Caroline APPLICANT: Jin Kim K.
| TITLE OF INVENTION: Antibodies to Human PF4A Receptors NUMBER OF SEQUENCES: 6
| CORRESPONDENCE ADDRESS: 6
| CORRESPONDENCE ADDRESS: 6
| CORRESPONDENCE ADDRESS: 6
| CORRESPONDENCE ADDRESS: 6
| COUNTRY: USA DEFINITION: Antibodies to Human PF4A Receptors NUMBER OF SEQUENCES: 6
| CORRESPONDENCE ADDRESS: 6
| COUNTRY: USA DEFINITION: AND PRANCISCO STREET: California COUNTRY: USA DEFINITION: CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF THE CALL OF TH
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Mineatin (Genentech) CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/701,265
FILING DATE: 22-AUG-1996
CLASSIFCATION NUMBER: 08/076093
FILING APPLICATION DATA:
APPLICATION NUMBER: 07/81078
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/81078
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/87211
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INPORMATION:
NAME: LOVE, RICHARD BRIGGE ATTORNEY/AGENT INPORMATION:
NAME: LOVE, RICHARD BRIGGE ATTORNEY/AGENT INPORMATION:
NAME: LOVE, RICHARD BRIGGE ATTORNEY/AGENT INPORMATION:
NAME: LOVE, RICHARD BRIGGE ATTORNEY/AGENT INPORMATION:
TELLEPHONE: 415/225-5530
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TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 mucleotides
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                                                             APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.
TILLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
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MEDIUM TYPE: 3.5 inc
COMPUTER: IBM PC com
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649 109 134 229 194 289 254 349 409 469 434 529 494 589 554 614 314 315 GTACAGGCTGCACCTGTCAGTGGCCGACCTCTTTTGTCATCACGCTTCCCTTCTGGGC 374 79 80 CAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACCGGGGA 135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCCGTGAAGAAAATGCTAA 230 TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGTTGACTGGCATAGTCGG 195 TITCAATAAATCITCCTGCCCACCATCTACICCATCATCTTTTAACTGGGCATTGTGGG CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAA 255 CANGGATIGGICALCCIGGICALGGITACCAGAAGAAACTGAGAAGCAICACGACAA CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 590 AGICTAIGIGGGCGICTGGAICCCAGCCCTCCTGACTAIACTGACTTCAICTTTGC 555 gerchargraegegreneganeereecenecenegegenaareeceaenraneer 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC 20 ececececianas de acecesas de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes de constantes d 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA AGTIGGIGTICTIGGAGACTATGACTCCAAGAAGGAACCCTGCTTCCGGGATGAAAAGGTCCA GTACCGGCTGCACCTGTCAGTGGCTGACCTCTTTTGTCATCACACTCCCCTTCTGGGC AGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT 375 AGTIGATGCCGIGGCAACTGGTACTTIGGGAACTICCTATGCAAGGCAGTCCATGTCAT Gaps 5; Sequence 3, Application US/08284586

Sequence 3, Application US/08284586

SENERAL INFORMATION:

APPLICANT: Chuntharapai, Anan
APPLICANT: Hebert, Caroline

APPLICANT: Hebert, Caroline

APPLICANT: Jin KW, K.

TITLE OF INVENTION: Antibodies to Human PF4A Receptors

NUMBER OF SEQUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSEE: Genentech, Inc.

STREET: 460 Point San Bruno Blvd

STREET: South San Francisco

STATE: California 0; Mismatches 103; Indels MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IEM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: WinPatin (Genentech) CGACGTCAGCCAGGGGGACATCAG 673 caacercaercaeccaearcaeae 638 CURRENT APPLICATION DATA:
RPPLICATION NUMBER: US/08/284,586
FILING DATE: 516; Conservative COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inc 170 290 350 410 470 435 495 650 615 Matches ò g ద g à 셤 8 g ઠે 셤 ò 8 ò 유 à 셤 ठे ò ò

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Pred. No. 1.4e-114;
0; Mismatches 103;
CLASSIFICATION: 424

PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
PRIOR APPLICATION DATA: 19-DEC-1991
APPLICATION NUMBER: 07/677211
FILING DATE: 29-MAR-1991
ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHARD B
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P2
TELECHONE: 415/25-5530
TELECHONE: 415/25-5530
TELECK: 910/371-7168
INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nucleotides
TYPE: Nucleic Acid
STRANDEDNESS: 25:091
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Best Local Similarity 82.7%;
Matches 516; Conservative (
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US-08-284-586-3
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Patent No. 5874543
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lebert, Caroline
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: ANTIBODIES TO PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC COMPALIBLE OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Winheatin (Genentech)

CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/805,478

FILING DATE: 10-AUG-1997

PRIOR APPLICATION DATA: 08/284586

FILING DATE: 10-AUG-1994

PRIOR APPLICATION NUMBER: 08/076093

PRIOR APPLICATION NUMBER: 08/076093

PRIOR APPLICATION NUMBER: 07/810782

FILING DATE: 11-JUN-1993

PRIOR APPLICATION NUMBER: 07/810782

FILING DATE: 19-DEC-1991

ATORNEY/AGENT INFORMATION: NAME: LOVE, RICHARD B.

REGISTRATION NUMBER: 34,659

REGISTRATION NUMBER: 97/810782

REGISTRATION NUMBER: 97/810782

REGISTRATION NUMBER: 97/810782

REFERENCE/DOCKT NUMBER: 97/06P2PICI

TELERPHONE: 411/225-5530 TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs 415/952-9881 TYPE: Nucleic Acid ; STRANDEDNESS: Single ; TOPOLOGY: Linear US-08-805-478-3 RESULT 8 US-08-805-478-3 d d 8 셤  $\delta$ à D, Š

 AA 314	GC 409 	AT 469 	TA 529    TA 494	GC 589 GT 554	GC 649 		
caatggaitggtgatcctggtcatgggttaccagaagaaggggggggg	GTACCGGCTGCACTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC 	agitgatgccatggctgactggtactitgggaaattittgtgtgtaaggctgtccatatcat 	CTACACTGTCAACCTGTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 	cotogecattgtecacgecaccaacaactgtaaggecaaggaaactgetggetgaaaagge 	AGICTAIGGGCGICTGGAICCCAGCCTCCTCCTGACTAACCTGACTTCATCTTTGC	CAGCCAGGGGACATCAG 673 	on US/08802627A  ames William I. NUCLEIC ACID ENCODING PP4A RECEPTOR RESS: ntech, Inc. nt San Bruno Blvd is francisco is inch, 1.44 Mb floppy disk c compatible i: PC-DOS/MS-DOS tin (Genentech) ER: CO-DOS/MS-DOS tin (Genentech) C inch, 1.44 Mb floppy disk c compatible i: PC-DOS/MS-DOS tin (Genentech) DATA: PEb-1997
290 CAATGGATTGGTGA1 	350 GTACCGGCTGCACC7 	410 AGTTGATGCCATGGG	470 CTACACTGTCAACCT 	530 CCTCGCCATTGTCQ/                    495 CCTGGCCATCGTCQ	590 AGTCTATGTGGGCG	650 CGACGTCAGCCAGGGGGACATCAG 	802-627A-3  ERAL INFORMATION: EPALICANT: Lee, Ja EPLICANT: Lee, Ja EPLICANT: Lee, Ja EPLICANT: Lee, Ja EPLICANT: Lee, Ja EPLICANT: Lee, Ja ITLE OF INVENTION: URBER OF SECURICES COUNTRY: USA ZIP: Californi COUNTRY: USA ZIP: 94 00 Poin STREET: Californi COUNTRY: USA ZIP: 94 00 COMPUTER: LEM PC COMPUTER: LEM PC COMPUTER: LEM PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC COMPUTER: LIP PC CLASSIFICATION NUMBE FILING DATE: LIP RICH DATE: LIP RICH DATE: LIP REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET TELENOMINICATION NUMBE REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/COCKET REPERROCE/CO
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82.7%; Pred. No. 1.4e-114;
tive 0; Mismatches 103;
COMPUTER: IBW PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOCHWARE: MAIDFAIL (Generatech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/801,238
FILING DATE: 19-Feb-1997
CLASSIFICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/76093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/910782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
APPLICATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 90706P2FID1
TELEPAX: 415/925-981
TELEPAX: 415/225-5830
TELEPAX: 415/225-981
TELEPAX: 415/321-7168
INPORMATION POR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LEBATH 1737 base pairs
TYPE: Nucleic Acid
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Best Local Similarity 82.7
Matches 516; Conservative
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US-08-801-238-3
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                                                                                                                                                               Gaps
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                                                                                                                         Length 1737;
                                                                                                                                                               Indels
                                                                                                                         Score 439.2; DB 2;
Pred. No. 1.4e-114;
0; Mismatches 103;
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
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US-08-801-238-3
Sequence 3, Application US/08801238
Settent No. 5919896
GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, William I.
TITLE OF INVENTION: PF4A RECEPTOR
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA.
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                                                                                                                         Query Match 64.1%;
Best Local Similarity 82.7%;
Matches 516; Conservative
           h LENGTH: 1737 base pairs

TYPE: Nucleic Acid

STRANDEDNESS: Single

TOPOLOGY: Linear

US-08-802-627A-3
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314 409 469

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555 GGTCTANGTIGGCGTCTGGATCCCTGCCTGCTGACTATTCCCGACTTCATCTTTGC 614
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135 AATGGGCTCAGGGGACTATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAATGCTAA 194
                                                                                                                                                                                                                                                     375 AGTIGATGCCGIGGCAACTGGTACTTIGGGAACTICCTAIGCAAGGCAGTCCAIGTCAT
                                                                                                                                           TITCAATAAAATCIICCIGCCCACCATCIACICCATCAICTICTIAACIGGCAITGIGGG
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US-09-104-296-3
US-09-104-296-3
; Sequence 3, Application US/09104296
; Parent No. 6087475
; GENERAL INFORMATION:
APPLICANT: Lee, James
APPLICANT: Wood, WIlliam I.
TITLE OF INVENTION: PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
STREET: 1 DNA WAY
CITY: South San Francisco
STATE: California
CONNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            650 CGACGTCAGCCAGGGGACATCAG 673
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APPLICATION NUMBER: 08/701265
PILING DATE: 22-AUG-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/664228
FILING DATE: 06-JUN-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
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555 GGTCTATGTTGGCGTCTGGATCCCTGCTCCTGCTGACTATTCCCCGACTTTGC 614
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Patent No. 592541
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF
TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF
TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF
TITLE OF INVENTION: METHODS FOR SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genencech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STREET: California
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY: USA.

ZIP: 94080

COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 ND floppy disk
CONFUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Winfatin (Genentech)
APPLICATION DATA:
APPLICATION NUMBER: US/08/801,228
FILING DATE: 19-Feb-1997
PRIOR APPLICATION DATA:
APPLICATION DATA:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/076093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGRAT INFORMATION:
NAME: LOVE, RICHARD B.
REGISTRATION NUMBER: 34,659
REGISTRATION NUMBER: 34,659
REPRENCE/POCKET NUMBER: P0706P2PID3
TELECPHONE: 415/225-5530
TELEPHONE: 415/525-9881
                                                                                                          650 CGACGTCAGCCAGGGGACATCAG 673
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TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single
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US-08-801-228-3
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us-09-367-052-5.rni

34,659 RR: P0706P2C2 REGISTATION NUMBER: 34,659
REFERRICE/DOCKET NUMBER: 907
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION INFORMATION:
TELERAN: 415,952-981
TELERA: 910/371-7168
INFORMATION FOR REQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
TYPE: Nucleic Acid
STRANDEDNESS: Single US-09-104-296-3

Gaps 'n Length 1737; Score 439.2; DB 3; Length : Pred. No. 1.4e-114; 0; Mismatches 103; Indels Query Match
Best Local Similarity 82.7%;
Matches 516; Conservative

<del>..</del> 109 79 20 GCGCGCCAAAAGTGACGCCGAGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAAC 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC

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315 GTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACCACGCTTCCCTTCTGGGC 350 GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGC

470 CTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA

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590 AGICTATGTGGGCGTCTGGATCCCAGCCTCCTGACTATACCTGACTTCATCTTTGC 555 GGTCTATGTTGGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTTGC

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650 CGACGTCAGCCAGGGGACATCAG 673 caacercaercaecaearcacae 638

RESULT 13
PCT-US94-06380-2
Sequence 2, Application PC/TUS9406380
Sequence 2, Application PC/TUS9406380
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: K. Jin Kim
APPLICANT: Genentech, Inc.

DISRODERS FOR TREATING INFLAMMATORY disk TITLE OF INVENTION: METHODS FOR TREATING INF
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSER: Generatech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READABLE FORM:
MEDIUM TYPE: 5.25 inch, 360 Kb floppy dis
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: patin (Genentech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/06380
FILING DATE: 11-UN-1993
ATTORNEY/AGENT INPORMATION:
NAME: Love, Richard B.
REGISTRATION NUMBER: 34,659
REPERENCA! ON NUMBER: 34,659
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REPERENCA! ON NUMBER: 34,659
REPERENCA! ON NUMBER: 34,659
REPERENCA! ON NUMBER: 34,659 ; TOPOLOGY: linear PCT-US94-06380-2

Gaps ٠. د. Length 1737; Indels Score 439.2; DB 5; Pred. No. 1.4e-114; 0; Mismatches 103; Query Match
Best Local Similarity 82.7%;
Matches 516; Conservative 50 GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGC

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169 7,0 20 decededadadreaceceaaceceaacecreachecearecearececarerecaaace 110 GAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCTGAAGA 80 CAGCGGTTACCATGGA----GGGGATCAGTATATACACTTCAGATAACTAACTGAGGA 용 8

134 229 194 170 AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCA 135 PATGGGCTCAGGGGACTATGATGACTCCATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAA 셤 ò ద

349 254 314 TITCAATAGGATCTICCTGCCCACCATCTACTTCATCTTTGACTGGCATAGTCGG 195 230 ò ద  $\dot{\delta}$ 엄

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CTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGACGGCTA

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CCTCGCCATTGTCCACGCCACCAGTCAAAGGCCAAGGAAACTGCTGGTGAAAAGGC
                      CCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTGGCTGAAAAGGT
                                                                                   SSS GGTCTATGTTGGCGTCTGGATCCCTGCCTCCTGCTGACTATTCCCGACTTCATCTTGC
                                                                                                                                                                                                                         Query Match 62.9%; Score 430.8; DB 4; Length 1225; Best Local Similarity 87.5%; Pred. No. 3e-112; Matches 471; Conservative 0; Mismatches 67; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 94304
COMPUTER READABLE FORM;
MEDIUM TYBE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
CONTWARE: Word Perfect 6.1 for Windows/MS-DOS 6.2
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/016,434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION UNMBER:
APPLICATION NUMBER:
FILING DATE:
CLASSIFICATION:
ATTORNAY AGENT INFORMATION:
NAME: Zeller, Karen J.
REFISTRATION NUMBER: 37,071
REFISTRATION NUMBER: 37,071
REFISTRATION NUMBER: 9A,0002 US
TELECHONE: (650) 855-0555
TELEPHONE: (650) 845-4166
INFORMATION FOR SEQ ID NO: 1235:
SEQUENCE CHARACTERISTICS:
LENGTH: 1225 base pairs
                                                                                                                                      650 CGACGTCAGCCAGGGGACATCAG 673
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CLASSIFICATION:
PRIOR APPLICATION DATA:
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STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; IMMEDIATE SOURCE;
; LIBRARY: GENBANK
; CLONE: g189313
US-09-016-434-1235
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216 GTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACTGTCAGTGGCCG

316 GTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTG

376 ACCICCITITGICALCACACICCCCTICTGGGCAGTIGATGCCATGGCTGACTGGTACT 276 accrecririgicaleacerrecerreresecasineareceresearecer

436 TIGGGAAAITITITGIGIAAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCG 495

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Seven	Gerstein, Murray South Wacker Dri	ο N	
848 L. 04el	э . Э Э	OPERATING SYSTEM: PC-DOS/MS-DOS SPGFWARE: PACENTIN RELEGAGE #1.0, YERRIY APPLICATION DATA: APPLICATION NUMBER: US/08/153,848 FILING DATE: CASSIFICATION DATA: OR APPLICATION DATA: APPLICATION DATA: APPLICATION DATA: TRILING DATE: 17-NOV-1992 TONNEY/AGENT INFORMATION:	ata E. 102 31794 31794 31794 31794 5:
15 Papplication US/08153848 159804 PRMATION: Godiska, Ronald Godiska, Patrick W. Schweikart, Vicki L. SCHWENTION: No. 5759804e1	, 00 '	OPERATING SYSTEM: PC-DOS/NS-DO SOFWARE: Patentin Release #1. SRENT APPLICATION DATA: APPLICATION NUMBER: US/08/153, FILING DATE: CLASSIFICATION: 514 IOR APPLICATION DATA: APPLICATION NUMBER: US 07/977, APPLICATION NUMBER: US 07/977, PILING DATE: 17.NOV-1992	
plication US/0815 804 ATION: Godiska, Ronald Gray, Patrick W. Schweikart, Vicki ENTION: No. 5759	4. 0 0 10	OPERATING SYSTEM: PC-DOS SOFTWARE: Patentin Releas CURRENT APPLICATION DATA: APPLICATION NUMBER: US/O FILING DATE: CLASSIFICATION: 514 PRIOR APPLICATION: 514 PRIOR APPLICATION UMBER: US O FILING DATA: 17 NOV-1995 ATTORNEY, AGENT INFORMATION:	NAME: No. 5759804and, Gre SEGGETRATION NUMBER: 35,3 REFERENCE/DOCKET NUMBER: LECOMMUNICATION INFORMATIO TELEBHONE: (312) 474-640 TELER: 25-3856 ID NO: 45 MATION FOR SEQ ID NO: 45 QUENCE CHARACTERISTICS: LENGTH: 1317 base pairs TYPE: nucleic acid STRANDEDNESS: single
plication 804 ATION: Godiska, Gray, Pat Schweika:	CES: CODRES CANG Sear Sear Sear Sear Flop	EM: Centilion I IMBER N: 5: IN DA: IMBER INFOR:	NUMBER: NUMBER: NUMBER: NUMBER: 110N INFOR (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (312) 474 (31
ULT 15 08-153-848-45 equence 45, Applicati atent No. 5759804 APPLICANT: Godiska APPLICANT: Gray, P APPLICANT: Gray, P APPLICANT: Gray, P TITLE OF INVENTION:		OPERATING SYSTEM: PC-D SOFTWARE: PStentin Rel CURRENT APPLICATION DATA: APPLICATION NUMBER: US FILING DATE: CLASSIFICATION: 514 PRIOR APPLICATION DATA: APPLICATION NUMBER: US FILING DATE: US FILING DATE: US FILING DATE: US FILING DATE: US FILING DATE: US ATTONNEY, AGENT INPON-19	NAME: No. 5759804and, REGISTRATION UNDRER: REFRENCE/DOCKET UNDRERS TELECOMMUNICATION INFORMA TELERONE: (312) 474-64 TELERA: 25-3856 INFORMATION FOR SEQ ID NO. SEQUENCE CHARACTERISTICS: LENGTH: 1317 base pair TYPE: nucleic acid STRANDEDNESS: aingle TOPPLOGY: linear
48-45 45, A 575 1NFOR ANT: ANT: OF IN	WRBER OF SEQ NRRESPONDENC ADDRESSEE: STREET: 6 CITY: Chic STATE: 11 COUNTRY: COO ZIP: 60606 MPUTER READ MRDIUM TYPE COMPUTER:	OPERATING SY, SOFTWARE: P. REET APPLICATION J FILING DATE: CLASSIFICATICATION APPLICATION APPLICATION J APPLICATION J APPLICATION J FILING DATE: FILING DATE:	NAME: NO. 57 REGISTRATION STREETSRUCE/DOCURECOMMUNICATION STREETS (1) TELEBRY: (3) TELEX: 25-38 RMATION FOR SOUTH 1317 TENGTH: 1317 TYPE: nuclei
T 15 -153-848-41 uence 45, 2 ent No. 57; NPERAL INFO APPLICANT: APPLICANT: APPLICANT:	NUMBER OF CORRESPON ADDRESSE ADDRESSE STREET: CITY: CITY: COUNTRY: ZIP: GCOMPUTER COMPUTER	OPER SOFT APPL FILLI CLASS RIOR APPL FILLI	NAME: REGISTR REGISTREN SIECOMMU TELEPHOX TELERAX TELEX: DRMATION SQUENCE TENENCE STRANDE CTRANDE
RESULT 15 US-08-153-848-45 Sequence 45, Applic, Patent No. 5759804 GENERAL INFORMATICA APPLICANT: GOA APPLICANT: GAA APPLICANT: SCA APPLICANT: SCA APPLICANT: SCA APPLICANT: SCA APPLICANT: SCA APPLICANT: SCA	50 G	5 E &	TI INFC
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196 ACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 255 TGAAGGAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACA 155

36 TCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCA

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136 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCA

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ö 554 CAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGCTCTGGATCCC 613 614 AGCCCTCCTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGGGGACATCAG 673 193 313 403 433 404 CGACCTCCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTA 463 493 464 CTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGTCAACCTCTACAGGGG 523 524 IGTCCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACGA 583 TGCCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAG 703 223 253 224 CATGAAGGAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCAC 283 314 GGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGC 373 494 CGTICTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAA 553 164 TITICAGATATACACTTCAGATAACTACAGGAAATGGGCTCAGGGGACTATGACTC 194 CAACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCAC 344 GGGTTACCAGAAGAAACTGAGAAGGATGGGACAGAAAGTACAGGCTGCACTGTCAGTGGC 374 TGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGGAGTTGATGCCATGGCTGACTGGTA CTTTGGGAAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACTCTACAGCAG 134 TGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTC 254 CATCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCAT Gaps ö Length 1317; 70; Indels Query Match
62.5%; Score 428; DB 1; L
Best Local Similarity 87.0%; Pred. No. 1.9e-111;
Matches 470; Conservative 0; Mismatches 70; 434 584 g à 엄 à 쉱 à d à g 유 ò d ò ò

Search cor Job time

completed: May 17, 2004, 16:15:45 ne : 56.8443 secs

# GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

May 17, 2004, 12:11:00 ; Search time 335.298 Seconds (without alignments) 9271.041 Million cell updates/sec Run on:

US-09-367-052-5 685

Title: Perfect score:

1 ccatcctaatacgactcact......gacatcagtcagggggatga 685 Sequence:

IDENTITY NUC Gapop 10.0 , Gapext 1.0 Scoring table:

2947324 seqs, 2269024515 residues Searched:

Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database :

Published Applications Nat.

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(cgnz 6/ptodata/1/pubpna/US00 NEW PUB.seq:\* Published Applications NA:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Description	Sequence 80, Appl	Sequence 9, Appli	Sequence 912, App	Sequence 14, Appl	Sequence 912, App	Sequence 332, App	Sequence 75, Appl	Sequence 58, Appl	Sequence 177, App	Seguence 20, Appl	Seguence 459, App	Sequence 1213, Ap	Sequence 3, Appli	Sequence 3, Appli
ΩI	US-10-211-462-80	US-10-181-906-9	US-10-342-887-912	US-10-151-274-14	US-10-172-118-912	US-10-170-385-332	US-10-225-567A-75	US-10-021-660-58	US-10-341-434-177	US-09-971-392-20	US-10-101-510-459	US-10-641-643-1213	US-09-104-063-3	US-10-666-689-3
DB	13	13	13	13	13	13	12	15	16	70	15	17	Q	13
% Query Match Length DB	1679	1679	1679	1679	1679	1679	1679	1679	1679	1711	1711	1664	1737	1737
& Query Match	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.2	65.1	64.1	64.1
Score	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	446.8	445.8	439.2	439.2
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9 US-09-880-107-2143	10 US-09-960-706-636	10-372	16 US-10-440-464-77	9 US-09-870-759-143	9-75	11 US-09-826-509-484	us-	15 US-10-014-322A-125	us-	15 US-10-101-510-741	16 US-10-305-720-1235	16 US-10-160-401-1	101-510	15 US-10-017-161-789	16 US-10-292-798-687	9 US-09-953-692-1	9 US-09-953-717-1	12 US-09-997-722-162	15 US-10-251-385-65	15 US-10-251-385-199	9 US-09-104-063-5	13 US-10-666-689-5	12 US-09-997-722-161	15 US-10-225-567A-59	15 US-10-240-965-154	13 US-10-276-774-893	-997-72	96-692	-86	16 US-10-057-475B-2641
1670	1670	1670	1670	1102	1102	1059	1059	1059	1059	1225	1225	5161	1224	1076	1076	1902	1902	1119	1119	1119	1679	1679	2824	2824	3011	3620	40	172	172	172
63.9	63.9	63.8	63.9	63.1	63.1	65.9	62.9	65.9	65.9	65.9	65.9	62.7	61.1	46.5	46.5	35.9	35.9	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2	22.2		20.7	20.7	
437.6	437.6	437.6	437.6	432.4	432.4	430.8	430.8	430.8	430.8	430.8	430.8	429.2	418.8	318.8	318.8	246	246	152.4	152.4	152.4	152.4	152.4	152.4	152.4	152.4	152.4	152.4	141.6	141.6	141.6
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	C 41	42	c 43	O 44	c 45

### ALIGNMENTS

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APPLICANT: Murray, Richard
APPLICANT: Murray, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Aziz, Natasha
APPLICANT: Aziz, Natasha
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Bos Biotechnology, Inc.
APPLICANT: Mathods of Greening for Angiogenesis, Compositions and
ITILE OF INVENTION: Methods of Screening for Angiogenesis Modulators
ITILE OF INVENTION: Methods of Screening for Angiogenesis Modulators
ITILE OF INVENTION: MOWBER: US 109/791,396
PRIOR APPLICATION NUMBER: US 09/791,390
PRIOR PILING DATE: 2001-02-13
PRIOR APPLICATION NUMBER: US 60/310,025
PRIOR PILING DATE: 2001-08-03
PRIOR PILING DATE: 2001-11-29
NUMBER OF SEQ ID NOS: 230
SSOFIMARE: Patentin Ver. 2.1
SEQ ID NOS: 230
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Sequence 80, Application US/10211462
Publication No. US20040033495A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ORGANISM: Homo sapiens
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                   104 IAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC
                                                  72 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC
                                                                                                  164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA
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| Sequence 9, Application US20040053864A1
| GENERAL INFORMATION:
| APPLICANT: Karsenty, Gerard
| APPLICANT: Aming wichael
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| APPLICANT: AMING without wording with a propertion of NOULATION woull with a prince of INVENTION: MOULATION of NEUROPEPTIDE Y ACTIVITY
| FILE OF INVENTION NUMBER: US/10/181,906
| CURRENT FILING DATE: 2001-999
| CURRENT FILING DATE: 2001-01-22
| WUMBER OF SEQ ID NOS: 16
| SEQ ID NOS: 16
| SEQ ID NO 9
| LENGTH: 1679
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                                     104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 163
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; ORGANISM: Homo sapiens
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US-10-342-887-912
i Sequence 912. Application US/10342887
j Fublication No. US20040058340A1
geneRAL INFORMATION:
    APPLICANT: Dai, Hongyue
    APPLICANT: Linsley, Peter S.
    APPLICANT: Linsley, Peter S.
    APPLICANT: Linsley, Peter S.
    APPLICANT: Van de Vijver, Marc J.
    APPLICANT: Van de Vijver, Marc J.
    APPLICANT: Van de Vijver, Marc J.
    APPLICANT: Van de Vijver, Marc J.
    APPLICANT: Darnards, Rene
    TITLE OF INVENTION: Diagnosis and Prognosis of Breast Cancer Patients
    FILE REFERENCE: 9301-188-999
    CURRENT FILING DATE: 2003-01-15
    PRIOR APPLICATION NUMBER: 60/298,918
    PRIOR APPLICATION NUMBER: 60/380,710
    PRIOR PELING DATE: 2002-06-14
    PRIOR PLING DATE: 2002-06-14
    PRIOR PELING DATE: 2002-06-14
    PRIOR PELING DATE: 2002-06-14
    PRIOR PELING DATE: 2002-06-14
    PRIOR PELING DATE: 2002-06-14
    PRIOR PELING DATE: 2002-06-14
    NUMBER OF SEQ ID NOS: 2699
    SEQ ID NO 912
    LENGTH: 1679
    TUNDER OF SEQ ID NOS: 2699
    TUNDER OF SEQ ID NOS: 2699
    TUNDER OF SEQ ID NOS: 2699
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Query Match
65.2%; Score 446.8; DB 13; Length 1679;
Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; Indels 5;
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                    Indels
    Pred. No. 2.5e-132;
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    Best Local Similarity 83.0%;
Matches 523; Conservative (
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Sequence 14, Application US/10151274

Sequence 14, Application US/10151274

Publication No. US20030064071A1

GENERAL INFORMATION:

APPLICANT: Littman, Dan R.

APPLICANT: Wow, Douglas S.

APPLICANT: Wan Kooyk, Yvette

APPLICANT: Work Town Kooyk, Yvette

APPLICANT: Geijtenbeck, Theo

TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTR:

CURRENT FILING DATE: 2000-05-20

PRIOR APPLICATION NUMBER: US/09/517,605

PRIOR APPLICATION NUMBER: US/09/517,605

NUMBER OF SEQ ID NOS: 17
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; TYPE: DNA ; ORGANISM: Homo sapiens US-10-151-274-14

SEQ ID NO 14 LENGTH: 1679

WESULT 5

US-10-172-118-912

US-10-172-118-912

Sequence 912, Application US/10172118

Publication No. US20030224374A1

GENERAL INFORMATION:
APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Roberts, Cher
APPLICANT: Roberts, Cher
APPLICANT: Roberts, Cher
APPLICANT: Wan't Ver't Laura
APPLICANT: Wan't Ver't Laura
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan't Bernards, Ren
APPLICANT: Wan de Vijver, Marc
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APPLICANT: Wan de Vijver, Marc
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APPLICANT: Wan de Vijver, Marc
APPLICANT: Bernards, Ren
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APPLICANT: Wan de Vijver, Marc
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APPLICANT: Wan de Vijver, Marc
APPLICANT: Wan de Vijver, Marc
APPLICAN TYPE: DNA ORGANISM: Homo sapiens LENGTH: 1679

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65.2%; Score 446.8; DB 13; Lengt!
Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; Indels
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; PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM_003467
DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-912
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Sequence 322, Application US/10170385
Sequence 332, Application US/10170385
PUDLICATION NO. US20030203372A1
GENERAL INFORMATION:
APPLICANT: Mandy, Christopher Robert
APPLICANT: Mandy, Christopher Robert
APPLICANT: Marie, Nonethan
APPLICANT: Mhite, Jonathan
APPLICANT: Binley, Katie Mary
APPLICANT: Rayner, William Nigel
APPLICANT: Rayner, William Nigel
APPLICANT: Rayner, William Nigel
APPLICANT: Kingeman, Susan Mary
APPLICANT: Krige, David
TITLE OF INVENTION: ANALYSIS METHOD
FILE REPERENCE: 522682000100
CURRENT FILING DATE: 2002-06-12

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103 163 126 223 186 283 246 343 306 403 366 463 426 523 486 583 546 643 71 44 GCAGGTGCAGGTAGCAGTGAGCCGTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 224 CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT 187 IGCTAATTICAATAAAAICTICCIGCCCACCAICTACTICCAICATCTICTTAACTGGCAT 284 AGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 247 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGAC 404 CTGGGCAGTTGATGCCATGGCTGACTTTTGGGAAATTTTTGTGTAAGGCTGTCCA TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA 524 COGGIACCICGCCATIGICCACGCCACCAACAGICAAAGGCCCAAGGAAACIGCTGGCTGA 584 AAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTCCTGACTATACCTGACTTCAT 12 GCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCG 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAA GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT Gaps iù Length 1679; Indels Query Match
65.2%; Score 446.8; DB 13;
Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; CTTTGCCGACGTCAGCCAGGGGGACATCAG 673 PRIOR APPLICATION NUMBER: PCT/GB02/01662
PRIOR FILING DATE: 2002-04-08
PRIOR PILING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 549
SOFTWARE FELING DATE: 2001-12-10
NUMBER OF SEQ ID NOS: 549
SOFTWARE PASESEQ for Windows Version 4.0
SEQ ID NO 332
LENGTH: 1679
TYPE: DNA
TYPE: DNA
GGANISM: Homo Sapiens
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RESULT 7

US-10-225-567A-75

US-10-225-567A-75

Sequence 75, Application US/10225567A

Publication No. US20030113798A1

GENERAL INFORMATION:

APPLICANT: LifeSpan Blosciences

APPLICANT: Burmer, Glenna C.

APPLICANT: Burmer, Glenna C.

APPLICANT: Roush, Christine L.

TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS

FILE REPERENCE: 1220-4-4

CURRENT APPLICATION NUMBER: US/10/225,567A

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Pred. No. 2.5e-132;
0; Mismatches 102;
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CURRENT FILING DATE: 2001-12-19
PRIOR APPLICATION UNDER: 60/257,144
PRIOR FILING DATE: 2000-12-19
NUMBER OF SEQ ID NOS: 2292
SOFTWARE: Petentin version 3.1
SEQ ID NO 75
LENGTH: 1679
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Best Local Similarity 83.0%;
Matches 523; Conservative (
                                                                                            TYPE: DNA
ORGANISM: Homo sapiens
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CURRENT FILING DATE: 2001-12-06
PRIOR APPLICATION NUMBER: US/09/784,356
PRIOR PILING DATE: 2001-02-14
PRIOR APPLICATION NUMBER: US 09/637,977
PRIOR FILING DATE: 2000-08-11
NUMBER OF SEQ ID NOS: 135
SOPTWARE: PRECSEQ for Windows Version 3.0
LENGTH: 1679

CURRENT APPLICATION NUMBER: US/10/021,660

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RESULT 8

US-10-021-660-58

Sequence 58, Application US/10021660

Publication No. US20330152926A1

GENERAL INFORMATION:
APPLICANT: Murray, Richard

APPLICANT: Watson, Susan R.

APPLICANT: BOS Biotechnology, Inc.
APPLICANT: BOS Compositions and Methods of Diagnosis of Angiogenesis, ITLLE OF INVENTION: Compositions and Methods of Screening for Angiogenesis; ITLLE OF INVENTION: Modulators

FILE REFERENCE: 018501-000710US
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Sequence 177, Application US/10341434
Publication No. US20030215835A1
GENERAL INFORMATION:
APPLICANT: Origine Technologies
TITLE OF INVENTION: Differentially Regulated Prostate Cancer Genes FILE REFERENCE: 9U 204 205 R1
CURRENT APPLICATION NUMBER: US/10/341,434
CURRENT FILING DATE: 2003-07-18

US-10-341-434-177

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; TYPE: DNA
; ORGANISM: Homo sapiens
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Best Local Similarity 83.0%; Pred. No. 2.5e-132;
Matches 523; Conservative 0; Mismatches 102; Indels
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           60/348,164
PRIOR APPLICATION NUMBER: US 60/;
PRIOR FILING DATE: 2002-01-15
PRIOR APPLICATION NUMBER: US 60/;
PRIOR FILING DATE: 2002-01-15
NUMBER OF SEQ ID NOS: 238
SOFTWARE: Patentin version 3.1
SEQ ID NO 177
LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                    ORGANISM: Homo sapiens FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                          . NAME/KEY: CDS
; LOCATION: (89)..(1144)
; OTHER INFORMATION:
US-10-341-434-177
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DIFFERENTIATION

REGULATED IN DENDRITIC CELL

TITLE OF INVENTION: GENES REGULATED IN DENDR PILE REFERENCE: PA-0029 US CURRENT APPLICATION NUMBER: US/09/971,392 CURRENT FILING DATE: 2001-10-03 PRIOR APPLICATION NUMBER: 60/237,652 PRIOR FILING DATE: 2000-10-03 NUMBER OF SEQ ID NOS: 260 SOFTWARE: PERL PROGram

NAME/KEY: misc feature OTHER INFORMATION: Template ID: 284616.2 NAME/KEY: unsure

TYPE: DNA ORGANISM: Homo sapiens

FEATURE:

SEQ ID NO 20

or other

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106
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US-10-101-510-459
Sequence 459, Application US/10101510
; Publication No. US20030148295A1
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; LOCATION: 1706
; OTHER INFORMATION: a, t, c,
US-09-971-392-20
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Sequence 20, Application US/09971392
Publication No. US20030134283A1
GENERAL INFORMATION:
APPLICANT: Peterson, David P.
APPLICANT: Pearson, Cecalia I.
APPLICANT: Cocks, Benjamin G.

RESULT 10 US-09-971-392-20

106 163 223 283 281 343 341 403 401 463 461 523 521 583 581 641 161 221 282 TGTGGGCAATGGATTGGTCATCGTGGTCATGGGTTACCAGAAAAACTGAGAAAGCATGAC AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCAT 47 degecadenácias de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de desercicas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas de defensas 104 TAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTC 107 GAGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACAC 164 TGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAA CGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCAT 222 recraarricaaraaancriccreccaccarcracrecarcarcricarriaacreecar 344 GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTGTCATCACACTCCCCTT TGTCATCTACACAGTCAACCTCTACAGCAGTGTCCTCATCCTGGCCTTCATCAGTCTGGA 584 AAAGGCAGTCTATGTGGGCGTCTGGATCCCCAGCCCTCCTCTGACTATACCTGACTTCAT 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG 162 cchechanicecrichecedacinicacicearchaeadaccriciricecrenaha 284 AGTCGCCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC CTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA CTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCA TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGA Score 446.8; DB 15; Length 1711; Pred. No. 2.Se-132; 0; Mismatches 102; Indels 5; ö g, other or unknown APPLICANT: WAN, JACKSON
APPLICANT: WAN, JACKSON
TILE OF INVENTION: EXPRESSION PROFILES AND MET
FILE REPERENCE: 1517, 0012
CURRENT APPLICATION NUMBER: US/10/101,510
CURRENT APPLICATION NUMBER: 00/276,947
PRIOR PILING DATE: 2001-03-20
NUMBER OF SEQ ID NOS: 805
SOFTWARE PATENTIN OF SEQ ID NOS: 805
SOFTWARE PATENTIN OF SEQ ID NOS: 805
SEQ ID NO 459
LENGTH: 1711 CTTTGCCGACGTCAGCCAGGGGGACATCAG 673 Query Match
Best Local Similarity 83.0%;
Matches 523; Conservative ΰ NAME/KEY: modified base i LOCATION: (1706) CHER INFORMATION: a, t, US-10-101-510-459 TYPE: DNA ORGANISM: Homo sapiens FEATURE: 644 224 342 404 402 464 462 582 642 à ò g d ò ò ò g ò 8 셤 ઠે

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US-10-641-643-1213 ; Sequence 1213, Application US/10641643

104 284 344 404 105 AGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAACTACTCT 165 GAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAAC GICCATITICAATAGGAICTICCTGCCCACCATCTACTICATCATCTTGACTGGCATA 176 GCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTCCATCATCTTCTTAACTGGCATT GTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGAAGGAGGAGCATGACG 23 6 GTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAAGCATGACG GACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTC 45 CAGGIGCAGGIAGCAGIGACCCICTGAGGCGITTTGGIGCTCCGGIAACCACCACGGCTGI 1 cedecaderaderaderandreaceceandedeceroanecentricadradecentrice 61 AGAACCAGCGGTTACCATGGA-----GGGGATCAGTATATACACTTCAGATAACTACACC THE DETECTION OF BLOOD CELL Query Match 65.1%; Score 445.8; DB 17; Length 1664; Best Local Similarity 83.0%; Pred. No. 5.2e-132; Matches 522; Conservative 0; Mismatches 102; Indels 5; COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
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SEQUENCE DESCRIPTION: SEQ ID NO: 1213 :
US-10-641-643-1213 Publication No. US2004007/0055.

GENERAL INFORMATION:
APPLICANT: Cocks, Benjamin G.
Susan G. Stuart
Jeffrey J. Seilhamer
TITLE OF INVENTION: COMPOSITION FOR TELEPHONE: (650) 855-0555
INFORMATION FOR SEQ ID NO: 1213:
SEQUENCE CHARACTERISTICS: TELECOMMUNICATION INFORMATION: TYPE: nucleic acid STRANDEDNESS: single STATE: CALIFORNIA COUNTRY: USA TOPOLOGY: linear IMMEDIATE SOURCE: CITY: PALO ALTO 225 345 요 ò

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                         465 ATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGAC
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/104,063
FILLIO DATE: 24-June-1998
                                                                                                                                                                                                                                                                                                                    645 ITTGCCGACGTCAGCCAGGGGGACATCAG 673
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Patent No. US20020168356A1
GENERAL INFORMATION:
APPLICANT: Wood, William I.
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
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FILING DATE: 48-JUME-1996
PRIOR APPLICATION DATA:
FILING DATE: 22-AUG-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/66428
FILING DATE: 06-JUM-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/07/093
FILING DATE: 10-JUM-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 11-JUM-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 90706F92
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415/225-5530
TELEFRAX: 415/952-9881
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADDRESSEE: Genentech, Inc.
STREET: 1 DNA Way
STRE South San Francisco
STATE: California
COUNTRY: USA
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INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
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STRANDEDNESS: Single
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COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 incl
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US-09-104-063-3
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APPLICANT: Mood, William I.

TITLE OF INVENTION: Hand pfe4 Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Hand pfe4 Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: HANDERS BINDING Thereto CURRENT POTOFORDICACEDCI CURRENT APPLICATION NUMBER: US/10/666,689

CURRENT FILING DATE: 2003-09-19

PRIOR FILING DATE: 1998-06-24

PRIOR FILING DATE: 1998-06-32

PRIOR PRILING DATE: 1996-06-08-25

PRIOR PRILING DATE: 1996-06-08-26

PRIOR FILING DATE: 1993-06-11

PRIOR APPLICATION NUMBER: US 08/076,093

PRIOR PRILING DATE: 1993-06-11

PRIOR PRILING DATE: 1991-12-19
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Gaps ŝ

Score 439.2; DB 9; Length 1737; Pred. No. 7e-130; 0; Mismatches 103; Indels 5;

64.1%;

Query Match Best Local Similarity 82.77 Matches 516; Conservative

US-09-104-063-3

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Patent No. US20020142981A1

GENERAL INFORMATION:
APPLICANT: Horne, Darci T.
APPLICANT: Gone Logic, Inc.
TITLE OF INVENTION: Gene Expression Profiles in Liver Cancer
FILE REFERENCE: 44921-5028-WO
CURRENT FAPLICANTON NUMBER: US/09/880,107

CURRENT FILING DATE: 2001-06-14

PRIOR FILING DATE: 2000-06-14
                                                                                                                                                                                                                                                                                        Length
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Pred. No. 7e-130;
0; Mismatches 103; Indels
PRIOR APPLICATION NUMBER: US 07/677,211
PRIOR FILING DATE: 1991-03-29
NUMBER OF SEQ ID NOS: 6
SEQ ID NO 3
LENGTH: 1737
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al Similarity 82.7%;
516; Conservative
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; ORGANISM: Homo sapien
US-10-666-689-3
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                                 5,
 Length 1670;
                                 Indels
Query Match 63.9%; Score 437.6; DB 9; Best Local Similarity 83.7%; Pred. No. 2.2e-129; Matches 509; Conservative 0; Mismatches 94;
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; OTHER INFORMATION: Genbank Accession No. US20020142981A1 L06797 US-09-880-107-2143

TYPE: DNA ORGANISM: Homo sapiens FEATURE:

60/237,054

PRIOR APPLICATION NUMBER: US 60,
PRIOR FILING DATE: 2000-10-02,
NUMBER OF SEQ ID NOS: 3950
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 2143
LENGTH: 1670

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Mus musculus (house mouse)

Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.

1 (Dases 1 to 906)

NIH-MCC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgappe-remail.nih.gov

Tissue Procurement: The Cepko Laboratory

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)

Found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: LLAM14130 row: c column: 07

High quality sequence stop: 668.
                            BE627479 UNSZED67.7

BE627479 UNSZED67.7

BR101953 60.752219

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BR41853 0 BX.18530

BIT65766 603046522

CD389217 AGENCOURT

BX358346 BX358346

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BM92080 AGENCOURT

BIRSTELS 603049139

BN051973 60363877

BX35225 603047792

BX35225 BX55253

BX4621827 BX462182

BX462182 BX44228

BX462187 BX462182

CA454255 AGENCOURT

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BX411511 BX411511

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AGENCOURT 10154335 NCI CGAP CO24 Mus musculus cDNA clone
IMAGE:6529663 5', mENA sequence.
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BG173867

BF6740844

BF6740844

BF6740842

BF6710953

BG093377

BM387369

BM387369

BM418530

BM58529

BM76229

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BM761118

BM761973

BM761973

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AUTHORS
TITLE
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COMMENT
                                               BU523025 AGENCOURT
BG174412 602334232
BG915636 602814106
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                                                                                                     May 17, 2004, 05:50:31 ; Search time 1977.17 Seconds (without alignments) 10345.919 Million cell updates/sec
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              GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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Listing first 45 summaries
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606.4
590
576.2
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Database :

Result Š.

Sequence:

Run on:

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Searched:

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ESM Mus musculus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.

CE 1 (bases 1 to 958)

RS NIH-MGC http://mgc.nci.nih.gov/.

AL Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Contact: Robert Strausberg, Ph.D.

Tissue Procurement: Gilbert Smith, Ph.D.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: The I.M.A.G.E. Consortium (LLNL)

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

Http://mage.llnl.gov.o column: 07

High quality sequence stop: 628.

Location/Qualifiers

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/note="Organ: mammary; Vector: pCMV-SPORT6; Site 1: Sall;
/lib:ary; constructed by Life Technologies: Investigator providing samples: Gilbert Smith, NIH"
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958 bp mRNA linear EST 06-FEB-2001
60334232F1 NCI_CGAP_Mam1 Mus musculus cDNA clone IMAGE:4457694 5',
mRNA sequence.
BG174412
EST. GI:12681115
Mus musculus (house mouse)
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                                                                                        /db_xxef="taxon:10090"
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Technologies. Note: this is a NCI_CGAP Library."
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    906
    organism="Mus musculus"
/mol_type="mRNA"
    strain="FVB/N"

    iocation/Qualifiers
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628 bp mRNA linear EST 10-DEC-1999 CGAP Mam4 Mus musculus cDNA clone IMAGE:2654812 5'
10.06797 PROBABLE G PROTEIN-COUPLED RECEPTOR LCR1
1); , mRNA sequence.
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Arrayed by: The I.M.A.G.E. Consortium (LLNL)
ng by: Washington University Genome Sequencing Center
oution: NCI-CAP clone distribution information can be
the I.M.A.G.E. Consortium/LINL at:
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289
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Heria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
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r Institute, Cancer Genome Anatomy Project (CGAP),
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r@mail.nih.gov
ement: Lothar Hennighausen Ph.D., Priscilla Furth
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_type="mRNA"

=in="mNRI"

xref="taxon:10090"

me="IMAGE:2654812"
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sequence stop: 434.
tion/Qualifiers
628
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                                     /clone_lib="NCI_CGAP_Mam4"
hote="Organ: mammary; vector: pCMV-SPORT6; Site_1: SalI;
Site_2: NotI, Cloned unidirectionally. Primer: Oligo dT.
Library constructed by Life Technologies. Investigators
providing samples: Lothar Hennighausen/Priscilla Furth,
NIH Reference for transgenic model: Li et al., Cell Growth
and Differentiation 7, 3-11 (1996)."
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gross tissue"
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les 609; Conser
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955 bp mRNA linear EST 06-FEB-2001 mRNA sequence. BG173867 Craniata, Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus. Mus musculus (house mouse)
Mus musculus
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia; GI:12680570 BG173867.1 RESULT 5 BG173867 LOCUS DEFINITION ORGANISM ACCESSION VERSION KEYWORDS SOURCE

607

120 180 312 240 372 300 432 360 486 420 546 480 540 665 /db\_xref="taxon:10090"
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/note="forgan: mammary; Vector: pCMV-SPORT6; Site 1: Sal1;
Site 2: Not1; Cloned unidirectionally. Primer: Öligo dT.
Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH" 192 252 909 9 NITHWAGE http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
contact: Preparation: Life Technologies, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clond through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM10253 row: g column: 08
High quality sequence stop: 652. CCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCA TGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGG GCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTGTTGCCATGGAACCGATCA GTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACT Agada a de de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra de la contra del la contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della contra della c CCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCT GGATCCCAGCCCTCCTCACTATACCTGACTTCATCTTTGCCGA-CGTCAGCCAGGGG GTGTGAGTATATACACTTCTGATAACTACTCTGAAGAAGAAGGGGGGTCTGGAGACTATGACT CCAACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCA TGGGTTACCAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGG -ACTITIGGGAAATITITIGTGTAAGGCTGTCCATATCATCTACAC----TGTCAACCTCT ACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACG CCACCAACAGTCAAAGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGGGTCT GCGTTTGGTGCTCCGGTAACCACCACGGCTGTAGAGCGAGTGTTGCCATGGAACCGATCA ccaacaaddaacciigciirccggaigaaaacgiccaiiricaaraggaiciirccigccca CCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCA CTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGT þe Gaps (MGC) 7; Length 955; Indels 79.4%; Score 544; DB 12; 95.6%; Pred. No. 4.6e-121; iive 0; Mismatches 20; 1. .955 /organism="Mus musculus" /mol\_type="mRNA" /strain="FVB/N" 593; Conservative Similarity Query Match Best Local S: Matches 593 73 н 133 61 121 253 181 313 241 373 301 433 487 421 547 481 193 REFERENCE AUTHORS TITLE JOURNAL COMMENT FEATURES ORIGIN \$ B \$ 유 ò 셤 챵

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241 AGTGGCTGACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGA 300
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   TGACTCCAACAAGGAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCT 120
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Mus musculus
Bukaryota,
Bukaryota,
Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
I Chases I to 585)
NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap.
National Cancer Institute, Cancer Genome Anatomy Project (CGAP),
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uu52b07.y1 Soares thymus 2NbMT Mus musculus cDNA clone
uu52b07.y1 Soares thymus 2NbMT Mus musculus cDNA clone
lungE:3375541 5' Similar to gb:L06797 PROBABLE G PROTEIN-COUPLED
RECEPTOR LCR1 HOWOLOG (HUMAN);, mRNA sequence.
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Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:1085145
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/note="Vector: pT7T3D-Pac"(Pharmacia) with a modified
                                                                                                                                                                                                                                               181 GGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTC
                                                                                                                                                                                                                                                                                                                 <u> AGTGGCTGACCTCCTCTTGTCATCACACTCCCCTTCTGGGCCAGTTGATGCCATGGCTGA</u>
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                                                                 GCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGCTCCT
                                                                                                     121 GCCCACCATCTACTTCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCT
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High quality sequence stop: 463.
Location/Qualifiers
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lab_host="DH10B"
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Unpublished (1997)
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AUTHORS
TITLE
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| Organism="Muka musculus" |
| Mol_type="maka" |
| Mol_type="maka" |
| Ab_xref="texon:10090" |
| Ab_xref="texon:10090" |
| Ab_xref="texon:10090" |
| Ab_xref="texon:10090" |
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Tissue Procurement: Dr. Jim Lin, University of Iowa Contact: Robert Straubed by: Dr. M. Bento Soares, University of Iowa ChNA Library Arrayed by: Dr. M. Bento Soares, University of Iowa Clone Distribution: Distribution information can be found at http://genome.ulowa.edu/distribution/mousefl.html

This clone was contributed by the Brain Molecular Anatomy Project (1904)
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Butheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus.
1 (bases 1 to 504)
Heil,O., Ebert,L., Neubert,P., Peters,M., Radelof,U., Schneider,D. and Korn,B. BX513842 BX513842 NCI CGAP Mam4 Mus musculus cDNA clone IMAGp9980056625 IMAGB:2654812, mRNA sequence. Mouse Unigeneset - R2FD2 Unpublished (2003) Contact: Ina Rolfs R2FD Deutsches Ressourcenzentrum fuer Genomforschung (Im Neuenheimer Feld 580, D-69120 Heidelberg, Germany RZFD; IMAGD9980056625. BX513842 BX513842.1 GI:32243853 RESULT 8 BX513842 LOCUS DEFINITION ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT ACCESSION VERSION KEYWORDS SOURCE

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109 169 120 229 180 289 240 349 300 409 301 GTACCGGCTGCACCTGTCAGGCTGACCTCCTTTTGTCATCACACTCCCTTCTGGGC 360 469 420 CTACACTGTCAACCTCTACAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTA 529 9 primer: GCAGGTAGCAGTGACCCTCTGAGGCGTTTTGGTGCTCCGGTAACCACGGCTGTAGAGC GAGTGTTGCCATGGAACCGATCAGTGAGTATATACACTTCTGATAACTACTCTGAAGA GCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACGCCACGGCTGTAGAGC 61 GAGIGIIGCCAIGGAACCGAICAGIGIGAGIAIAIACACIICIGAIAAACIACICIGAAAGA 121 AGTGGGGTCTGGAGACTATGACTCCAACAAGAACCCTGCTTCCGGGATGAAAACGTCCA TITCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTCTTGACTGGCATAGTCGG 181 TITCAATAGGAICTICCIGCCCACCAICTACTICATCAICTICTIGACTGGCATAGTCGG CAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGGTAAGGAGCATGACGGACAA 361 AGTIGATGCCATGCTGCTGCTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCAT AGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGGATGAAAACGTCCA GTACCGGCTGCACCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCTTCTGGGC **AGTTGATGCCATGGCTGACTGGTACTTTTGGGAAATTTTTTGTGTAAGGCTGTCCATATCAT** Gaps RZPDLIB; I.M.A.G.E. cDNA Clone Collection;
Mouse UnigeneSet - RZPD2 (RZPDLIB No.981)
http://www.rzpd.de/CloneCarde/Cgibin/showhib.pl.cgi/response?libNo=981 Contact: Ina Rolfs
RZPD Deutsches Ressourcenzentrum fuer Genomforschung GmbH
Heubnerweg 6, D-14059 Berlin, Germany
Tel: +49 30 32639 101
Fax: +49 30 32639 111
www.rzpd.de
Tww.rzpd.de
Tsp. clone is available royalty-free from RZPD;
contact RZPD (clone@rzpd.de) for further information. Seq prin
SP6, Primer sequence: ATTARGGTGACACTATAG. . Query Match 73.4%; Score 503; DB 13; Length 504; Best Local Similarity 99.8%; Pred. No. 3e-111; Matches 503; Conservative 0; Mismatches 1; Indels ( /organism="Mus musculus" /mol\_type="mRNA" /strain="NMRI" Location/Qualifiers 20 Н 110 170 230 290 241 350 410 470 FEATURES ORIGIN ઠે g ò g à q ò 셤 ò g ठे 셤 ò QC  $\delta$ 

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/clone="IMAGE:3980525"
/tissue type="tumor, biopsy sample"
/dev stage="10 months, virgin"
/lab host="nll0"
/lab host="NCI_GGAP_Mam1"
/note="Organ: mammarry; Vector: pCMV-SPORT6; Site 1: Sal1; Site 2: Not1; Cloned unidirectionally. Primer: Oligo dT. Library constructed by Life Technologies. Investigator providing samples: Gilbert Smith, NIH"
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S NIH-WGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC)
National Institutes of Health, Mammalian Gene Collection (MGC)
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausberg, Ph.D.
Contact: Robert Strausherg, Ph.D.
Cond Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Cloe distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LLNL at:
http://image.llnl.gov. e column: 06
High quality sequence stop: 665.
High quality sequence stop: 665.
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/mol_type="mRNA"
/strain="FVB/N"
                                                                                                                                Mus musculus (house mouse)
Mus musculus
                                                                                           BF101953.1 GI:10884479
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Matches 534; Conservative
                                                 mRNA sequence.
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ut70g04.y1 Soares mouse NMGB bcell Mus musculus cDNA clone IMCGE:333318 5' Bimilar to SW:CCR4_MOUSE P70658 C-X-C CHEMOKINE BG093377
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NCI-GGAP http://www.ncbi.nlm.nih.gov/nciogap.
National Cancer Institute, Cancer Genome Anatomy Project (GGAP),
                                                                                                                                                                                                                                                                 Tumor Gene Index
Organisated (1997)
Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:1077482
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Best Local Similarity 94.9%; Pred. No. 8e-104;
Matches 488; Conservative 0; Mismatches 26; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                         Trace considered overall poor quality Seq primer: -40RP from Gibco High quality sequence stop: 1. Location/Qualifiers
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542
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556 482

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-- GGGAAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGT

365 497 423

8 B 8

Email: Dento-soares@ulowa.edu

The sequence contained an oligo-dT track that was present in the oligonuclecuide that was used to prime the synthesis of first strand cDNA and therefore this may represent a bonafide poly A tail. The sequence tag present in the cDNA between the NotI site and the oligo-dT track served to identify it as a clone from the normalized cervix library cDNA Library Preparation: M.B. Soares Lab Genetics (www.resgen.com) BM387369 765 bp mRNA linear EST 17-JAN-2002 UI-R-CN1-cjj-g-19-0-UI.81 UI-R-CN1 Rattus norvegicus cDNA clone UI-R-CN1-cjj-g-19-0-UI 3', mRNA sequence. 241 CCTGTCAGTGGCTGACCTCCTTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCAT 300 541 420 601 180 361 240 421 481 GGCTGACTGGTACTTTGGGAAATTTGTGTGTAAGGCTGTCCATATCATCTACACTGTCTA 360 301 EST. Sattus norvegicus Rattus norvegicus Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, 1 (bases 1 to 765)
Bonaldo,M.F., Lennon,G. and Soares,M.B.
Normalization and subtraction: two approaches to facilitate gene CTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGCAATGGATTGGT CTTCCTGCCCACCATCTACTTCATCATCTTGACTGGCATAGTCGGCAATGGATTGGT GATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCA CCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCAT GGCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAA CCTCTACAGCAGCGTTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGT Contact: Soares, MB Coordinated Laboratory for Computational Genomics University of Iowa 375 Newton Road, 4156 MEBRF, Iowa City, IA 52242, USA Tel: 319 335 8250 Fax: 319 335 9565 CGTCTGGATCCCAGCCTCCTCCTGACTATACCT 635 discovery Genome Res. 6 (9), 791-806 (1996) 97044477 8889548 BM387369.1 GI:18187422 482 ( 181 302 242 362 422 121 301 602 RESULT 11 BM387369 LOCUS DEFINITION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL MEDLINE PUBMED COMMENT ACCESSION Dp ò g a ò à 8 g à g g à ò

1. 765 /organism="Rattus norvegicus" /mol\_type="mRNA" /strain="Sprague-Dawley" /db\_xref="taxon:10116" /clone="UI-R-CNI-cjj-g-19-0-UI"

location/Qualifiers

FEATURES

Seq primer: M13 Forward POLYA=Yes.

Anotes The control of the control of the control of the control of the control of the control of the control of the control of even normalized rat libraries normalized rat bloader. Normalized rat libraries normalized rat bloader normalized rat libraries normalized rat bloader normalized rat libraries normalized rat bloader normalized rat libraries normalized rat bloader normalized rat libraries normalized rat libraries normalized rat libraries normalized rat libraries normalized rat libraries normalized rat library pland. It was constructed according to the procedure described by Bonado, Lennon & Sparse (Genome Research Genome 6: 791-806, 1956). For construction of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the con

This pool represented 5% of the final driver population.

h) a pool of the 28 most abundant clones in the CNO pool corresponding to the following addresses: bkw-a-09-0-UI, bkw-b-110-UI, bkx-b-100-UI, bkx-b-100-UI, bkx-d-120-UI, bkx-d-05-UI, bkx-d-010-UI, bkx-d-05-UI, bkx-d-010-UI, bkx-a-110-UI, bkx-a-05-UI, bkx-a-110-UI, bkx-a-06-0-UI, bkx-a-110-UI, bla-a-010-UI, bla-a-010-UI, bla-a-12-0-UI, bla-a-010-UI, bla-a-10-UI, bla-a-10-UI, bla-a-110-UI, bla-a-12-0-UI, bla-a-110-UI, bla-a-10-UI, bla-a-110-UI, bla-a-12-0-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-110-UI, bla-a-10-UI, bla-a-10-UI, bla-a-10-UI, bla-a-10-UI, bla-a-10-UI, bla-a

ö 195 255 164 224 315 284 316 GITACCAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTG 375 344 435 404 495 555 524 464 556 GICAAAGGCCAAGGAAACIGCIGGAAAAAGGCAGICIAIGIGGGCGICIGGAICCCGAG 615 TGAGTATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGAACTATGACTACCA 285 GITACCAGAAGAGGAGCATGACAGACAAGTACCGGCTGCACCTGTCCGTGGCTG 376 ACCTCCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACT 465 TICTCATCCTGGCCTTCATCAGCCTGGACCGCTACCTTGCCATTGTCCACGCCCACACA 525 GCCAGAGGCGGAGGAAGCTGGCTGGAAAAGGCCGTCTATGTGGGTGTTGGATCCCCG 105 TGGAAATATACACTTCGGATAACTACTCCGAAGAAGTAGGGTCTGGAGACTATGACTCCA 165 ACAAGGAACCCTGCTTCCGGGATGAAAACGAAAACTTCAACAGGATCTTCCTGCCCACCA 225 TCTATTTTATTATCTTCTTGACTGGCATAGTGGGCAATGGGTTGGTAATCCTGGTCATGG 436 TIGGGAAATITITIGIGIAAGGCIGICCAIAICAICTACACCIGICAACCICIACAGCAGCG 405 Tridecapartrirangrapederigrecararcarcracecercasecriracaecae 496 ITCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACA 196 ACAAGGAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCA 256 TCTACTTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGG Gaps ö Query Match 68.7%; Score 470.8; DB 12; Length 765; Best Local Similarity 92.2%; Pred. No. 2.4e-103; Matches 496; Conservative 0; Mismatches 42; Indels 0; 136 a 엄 à g ઠ g 8 원 P g 음 ò ઠે ò ઠે 8

BX418530 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone CSODF006Y116 5-PRIME, mRNA sequence. BX418530 BX418530.1 GI:30658606 EST. Homo sapiens (human) RESULT 12 BX418530 LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE

/organism="Homo sapiens"

Mol\_type="mRNA"

/Mol\_type="mRNA"

/db\_cref="taxon:9606"

/clone="CSODF006716"

/clone="type="FETAL BRAIN"

/dev\_gtage="fetal"

/clone="total"

/clone="fetal"

/clone="fetal"

/clone inb="homo sapiens FETAL BRAIN"

/note="Organ: brain; Vector: pCMVSPORT 6; lst strand cDNA

was primed with a Not1-oligo(dT) primer. Five prime end

enriched, double-strand cDNA was digested with Not I and

cloned into the Not I and EcoRV sites of the pCMVSPORT 6

vector. Library was not normalized." Homo sapiens
Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
1 (bases 1 to 1201)
1 (bases 1 to 201)
1 (Aruber.C., Jessee, J. and Polayes, D.
Full.length cDNA libraries and normalization
Unpublished (2001) Contract: Genoscope
BP 191 91006 STWT cedex - France
Genoscope - Centre National de Sequencage
BP 191 91006 STWT cedex - France
Bmail: seqrefégenoscope.cns.fr, Web : www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgl-bin/cluster.cgi?seq=CSODF006DE08QPlscluster=1272.r. Contact :
Freng Liang Email: fliangedifferech.com VEL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODF006DE08QPl. ORGANISM REFERENCE AUTHORS TITLE JOURNAL COMMENT FEATURES ORIGIN

5; Gaps Similarity 82.8%; Pred. No. 3.6e-98; Similarity 82.8%; Pred. No. 3.6e-98; S. Conservative 1; Mismatches 103; Indels 5; Query Match Best Local Simil Matches 526; C

120 158 175 235 295 338 80 CCCGGGCAGGTGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCAC GGCTGTAGAGCGAGTGTTGCCATGGAACCGATCAGTGTGAGTATATACACTTCTGATAAC GGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGC TACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAGGAACCCTGCTTCCGGGAT GAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTACTTCATCATCTTGACT 39 9 219 279 159 176 236 셤 ò 엄 ð 셤 ö à g à

475 355 398 415 458 CCCTTCTGGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCA AIGACGGACAAGTACCGCTGCACCTGTCAGTGGCTGCCTCCTCTTTGTCATCACACTC GTCCAPATCTACACTGTCAACCTCTACAGCGCTTCTCATCCTGGCCTTCATCAGC GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGC 356 ATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTT CCCTTCTGGGCAGTTGATGCCATGGCTGACTTTGGGGAAATTTTTGTGTAAGGCT GICCATGICATCTACACAGTCAACCTCTACAGCAGTGICCTCATCCTGGCCTTCATCAGT 596 339 399 416 459 476 8 8 g 셤 8 ઠે g

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	Qy         324 AAGAAGCTAAGGAGCAACGAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTC 383           Db         304 AAGAAACTAAGAAGCATGACGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTCCTC 363           Qy         384 TTTGTCATCACACTCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTCACTTTGGGAAA 443           Db         364 TTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGGAAC 423           Qy         444 TTTTGTGTAAGGCTGTCCATTATCATCACTGCCAACTGGTAACTTCTCATC 503           Db         424 TTCCTTCATGAAGGCTGTCCATTATCATCACACTGCAACCTCTACAGCAGTCTCTATC           Qy         504 CTGGCCTTCATCACCTACACTACACACGCCCTACAGCAGTCATCATCA           CTGGCCTTCATCAGCCTGGACCGCAACAGCACCACAACAGCACACACA	Qy         564 CCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGCGCTCGGACCCTCCTC 623           Db         544 CCAAGGAAGCTGTTGGCTGAAAAGGTCTATGTTGGCTCTGGATCCTGCCTCCTG 603           Qy         624 CTAGCTATACTGACTTTGCCGACGTCTAGGCACATCAG 673           Db         604 CTGACTATTCATCTTTGCCGACGTCAGCAGGCACATCAG 653           RESULT 14 CTGACTATTCTTTTGCCAACGTCAGTCAGCAGATGACAG 653           CCGACTATTCCCGACTTCATCTTTGCCAACGTCAGTCAGGCAGATGACAG 653           RESULT 14 CTGACTATTCTTTTGCCAACGTCAGTCAGGCAGATGACAG 653           CCGACTATTCTTTGCCAACGTCAGTCAGTCAGGCAGATGACAG 653           CCGACTATTCATCTTTTGCCAACGTCAGTCAGGCAGATGACAG 653           CCGACTATTCATTTTGCCAACGTCAGTCAGTCAGGCAGATGACAG 653           CCGACTATTCATTTTGCCAACGTCAGTCAGTCAGGCAGATGACAG 653           CCGACTATTCATTTTGCCAACGTCAGTCAGTCAGGCAGATGACAG 653           CCGACTATTTTGCCAACGTCAGTCAGTCAGGCAGATGACAG 653           CCGACTATTTTGCCAACGTCAGTCAGTCAGGCAACGTCAGTCA	ebrata; Euteleos ominidae; Homo. le Collection (MG stein (NHGRI) wit stortium (LLNL)	Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llni.gov Plate: NDAM385 row: b column: 21 High quality sequence stop: 663.  High quality sequence stop: 663.  I802  /organism=Hhom sapiens" /db_xref="htmxon:9606" /clone="IMAGE:30346124" /tissue=type="Human Placenta" /lab_host="DHS TONA" /clone="Lype="Human Placenta" /lab_host="DHS TONA" /clone_lib="NHH_MGC_147"
Db 536 CTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTG 595  Qy 579 GCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTCCTCTTATACCTGAC 638	RESULT 13 B1765768 B1765768 B1765768 DEFINITION 603046522F1 NIH_MGC_116 Homo sapiens cDNA clone IMAGE:5186837 5', ACCESSION B1765768 I G1:15757346 KEYWORDS SOURCE Homo sapiens (human) ORGANISM Homo sapiens (human) Amenala, Burthearia, Primates, Cararrhin; Hominidae; Homo. AUTHORS NIH-MGC http://mgc.nci.nih.gov/. TITLE National Institutes of Health, Mammalian Gene Collection (MGC) JOURNAL Unpublished (1999)	COMMENT Contact: Robert Strausberg, Ph.D.  Email: cgapbs-remail.nih.gov.  Tissue Procurement: Life Technologies, Inc.  CDNA Library Preparation: Life Technologies, Inc.  CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  DNA Sequencing by: Incyte Genomics, Inc.  Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:  Lone till gov. I column: 06  High quality sequence start: 24  High quality sequence start: 24  High quality sequence stop: 703.	)	Query Match Best Local Similarity 81.8%; Pred. No. 3.98-98; Matches 532; Conservative 0; Mismatches 113; Indels 5; Gaps 1;  Qy 24 GGGCTCGAGCGCCCCGGCCAGCTGCAGCTACCCTCTGAGCGTTTGGTGC 83

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Strausberg, Ph.D.

Small.nih.gov

ent: Dr. Stefan Hansson

reparation: Michael J. Brownstein (NHGRI) with help

Plero Carninci (RIKEN)

rrayed by: The I.M.A.G.E. Consortium (LLNL)

by: Agencourt Bioscience Corporation

tion: MGC clone distribution information can be

nl.gov
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NIH_MGC_147 Homo sapiens cDNA clone
mRNA sequence.
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s of Health, Mammalian Gene Collection (MGC)
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e="mkNA"
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IMAGE:30346124"
type="Human Placenta"
t="DH10B TOMA"
ib="NHIMBG_147"
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CD389217
AGENCOURT\_14302495 NIH\_MGC\_173 Homo sapiens cDNA 5', mRNA sequence. CD389217.1 GI:31227843 EST. LOCUS DEFINITION ACCESSION VERSION KEYWORDS SOURCE ORGANISM RESULT 15 CD389217

Homo sapiens (human)
Homo sapiens
Homo sapiens
Bukaryote, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryote, Metazoa; Chordates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 928)
NIH-MGC http://mgc.nci.nih.gov/. REFERENCE AUTHORS

Unpublished (1999)
Contact: Daniela S. Gerhard, Ph.D.
Office of Cancer Genomics
National Cancer Institute / NIH
Bldg. 31 RANDAON Betheada, MD 20892
Email: Cgapbs-romail.nih.gov
Tissue Procurement: Dr. Jamie Thompson, University of WI
CDNA Library Preparation: Gina Zastrow-Hayes
CDNA Library Preparation: Gina Zastrow-Hayes
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: MGC clone distribution information can be thtp://image.llnl.gov
Plate: NDEMY4 row: 1 column: 08
High quality sequence start: 8
High quality sequence start: 8
Location/Qualifiers be

., -, 103 44 GCAGGTGCAGGTAGCAGTGACCCTCTGAGGCGTTTGGTGCTCCGGTAACCACCACGGCTG Gaps 2, Query Match 65.2%; Score 446.8; DB 14; Length 928; Best Local Similarity 83.0%; Pred. No. 1.7e-97; Matches 523; Conservative 0; Mismatches 102; Indels 5;

328 388 403 463 269 TGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAAGCATGAC 284 AGTCGGCAATGGATGGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGAC 329 ggacaagracagerrecaererereresergeceaecrererrigreareaegerrecerr CTGGGCAGTTGATGCCATGCCTGACTGGTACTTTGGGAAATTTTTGTGTAAGGCTGTCCA GGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTCCTCTTTGTCATCACACTCCCCTT 404 g ò

448 523 508 583 TATCATCTACACTGTCAACCTCTACAGCAGCGTTCTCCATCCTGGCCTTCATCAGCCTGGA TGTCATCTACACACACACACCTCTACAGCAGTGTTCTTCTTCTTCATCATCAGCACTCTAGGC crescaerrantecegrescanderegracurrescancricerarscanssacres 389 464 449 524 ద ò g ò

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569 AAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCAT 628

유 상 유 Search completed: May 17, 2004; 16:09:07 Job time : 1983.17 secs

## GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Pred. No. is the number of results predicted by chance to have a

score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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Was musculus (house mouse)

EMARYCE, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mus musculus

EWARYCE; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.

EMARNGATE, Chingold, E.A., Grouse, L.H., Derge, J.G.,

Rlausner, R.D., Collins, F.S., Wagner, L., Shenmen, C.M., Schuler, G.D.,

Rlausner, R.D., Tordan, H., Moore, T.H., Schaefer, C.F., Bhar, N.K.,

Hopkins, R.F., Jordan, H., Moore, T., Max, S.I., Wang, J., Hsieh, F.,

Diatchenko, L., Marusina, K., Farmer, A.A., Rubin, G.M., Hong, L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

Stapleton, M., Soares, M.B., Bonaldo, M.F., Casavant, T.L.,

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Abramson, R.D., Mullahy, S.J., Bosak, S.A., McEwan, P.J.,

Morley, K.C., Hale, S., Garda, A.M., Gay, L.J., Hulyk, S.W.,

Vilalon, D.K., Mullahy, S.J., Gundarane, P.H., Richards, S.W.,

Fahey, J., Helton, E., Ketteman, M., Madan, A., Rodrigues, S.,

Sanchez, A., Whiting, M., Madan, A., Young, A.C., Shevchenko, Y.,

Butterfield, Y.S., Kzzywinski, M.I., Stalska, J., Smailus, D.E.,

Bouffsand, G.G., Blakesley, R.W., Touchman, J.W., Green, E.D.,

Blotkson, M.C., Rodriguez, A.C., Grimwood, J., Schmutz, J., Myers, R.M.,

Butterfield, Y.S., Kzzywinski, M.I., Skalska, J., Smailus, D.E.,

Scherch, A., Schein, J.E., Jones, S.J. and Marra, M.A.

Generation and initial analysis of more than 15,000 full-length

Human and mouse odna sci. U.S.A., 99 (26), 16899-16903 (2002)
                                                                                                                                                                                                                          1761 AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTTAATAAAAG 1820
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                                                                                                                 1621 AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTTAATAAAAG 1680
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Submitted (06-UTN-2002) National Institutes of Health, Mammalian
Gene Collection (MGC), Cancer Genomics Office, National Cancer
Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
NIH-MGC Project URL: http://mgc.nci.nih.gov
Contact: MGC help desk
Email: Gapbs-romail.nih.gov
Tissue Procurement: Gilbert Smith, Ph.D.
Tissue Procurement: Gilbert Smith, Ph.D.
Tissue Procurement: Gilbert Smith, Ph.D.
DNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.B. Consortium (LLML)
DNA Sequencing Dy: Baylor College of Medicine Human Genome
Sequencing Center
Center code: BGCH-HGSC
Web site: http://www.hgsc.bcm.tmc.edu/cdna/
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1821 TCAATGATAAACTT 1834
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                                                                                                                                                                           Clone distribution: MGC clone distribution information can be found through the I.M.A.G.B. Consortium/LiNL at: http://image.llnl.gov Series: IRAK Plate: 61 Row: d Column: 24 This clone was selected for full length sequencing because it passed the following selection criteria: Similarity but not identity to protein.

Location/Qualifiers
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family)"
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                                    H.
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model. I0 month old virgin mouse. Taken by biopsy."
/dlone_lib="NGI GGAP_Man1"
/lab host="MH10B"
/note="Vector: pGMV-SPORT6"
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Contact: amg@bcm.tmc.edu
Gunaratne, P.H., Garcia, A.M., Lu, X., Hulyk, S.W., Loulseged,
Kowis, C.R., Sneed, A.J., Martin, R.G., Muzny, D.M., Nanavati,
A.N., Gibbs, R.A.
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AC145861 175370 bp DNA linear HTG 01-AUG-2003 Pan troglodytes chromosome UNK clone RP43-21D9, \*\*\* SEQUENCING IN PROGRESS \*\*\*, 39 unordered pieces. 1680 1717 AC145861 AC145861 G1:33386791 HTG; HTGS\_PHASE1. Pan troglodytes Pan troglodytes Bukaryotes, Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Pan. Direct Submission Submitted (01-AUG-2003) Genetics, Genome Sequencing Center, 4444 Forest Park Parkway, St. Louis, MO 63108, USA 1718 AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTTAATAAAG AGAGTAGATTGACTTCAGTCCCTACAAATGTACAGTCTTGTATTACATTGTTAAAAAG GITITITITITIGITGITGITGITTITITITITITICIGIAAAAGATGGCACTTAAAACCCAAA NOTE: This is a 'working draft' sequence. It currently consists of 39 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved. 5345: contig of 5345 bp in length 5445: gap of unknown length 17195: contig of 11750 bp in length 17295: oottig of 11750 bp in length 33250: contig of 15955 bp in length 33350: gap of unknown length 45646: contig of 12595 bp in length 45746: gap of unknown length 61992: contig of 16246 bp in length 61992: contig of 16246 bp in length f unknown length g of 16246 bp in length f unknown length g of 1331 bp in length f unknown length g of 1143 bp in length 1 (Dates 1 to 1733/0)
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The sequence of Pan troglodytes clone
Unpublished ---- Genome Center 2 (bases 1 to 175370) Wilson, R.K. 1778 TCAATGATAAACTT 1791 TCAATGATAAACTT 1694 5346 17196 17296 333251 45647 45647 62093 63424 1441 1539 1501 1599 1561 1621 1691 RESULT 3 AC145861 LOCUS DEFINITION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL ACCESSION

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Best Local Similarity 97.8%;
Matches 1668; Conservative 241 301 721 гH 361 421 481 167982 168042 121 168102 181 168162 168222 168282 168342 168402 168462 541 168522 168582 661 781 168822 19 601 168642 168702 168762 901 168882 g දු පු 상 음 엄 ò QQ දු පු d ò 9 6 g 8 8 역 상 역 1 90 Y  $\delta$ ò 8 8 8 δ Ωp

169061 169177 169357 169417 169537 169597 1312 1372 1492 1549 169002 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACACTTATGCAAAGACATATAT 169122 AGAGACTGACTCTTGTACAGTTTTTTTTTTTT----ATTGACTGTTGGGAGTTTATG 169358 TGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCA 168942 AGCAGAGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 169062 AATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATA TITCATGIGAAIGAGCGICTAGGCAGGACCTGIGGCCCAAGTICTIAGTAGCIGTITAATCT TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCCTTATGCAAAGACTTATAT ---ATATATATATATATATGATAAGAACTTTTTATGTTACACATTTTCCAGATATA AGAGACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATG 169238 TTTCATGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCT GTGTGTAGGACTGTAGAACTGTAGAAGAAAACTGAAACATTCCAGAATGTGTGGTAAAT 169298 GTGTGTAGGACTGTAGAACTGTAGAAGAAGAAACTGAACATTCCAGAATGTGTGTAAAT TICAGITITICAAGAGIAGATIGACITICAGICCCIACAAAIGIACAGICITIGIATIACAIT TGAATAAAGCTAGCCGTGATCCTCAGCTGTTGCTGCATAATCTCTTCATTCCGAGGAGCA CCCCACCCCCACCCCCACCCCCATTCTTAAATTGTTTGGTTATGCTGTGTGATGG 169658 GTTAATAAAGTCAATGATAAACTT 169682 GTTAATAAAAGTCAATGATAAACTT 1694 1137 1253 1550 1081 1313 1373 169418 1493 169538 1610 1021 1197 1433 1670 임 상 원 상 임 8 8 8 8 8 Ω g g δ 엄 ò ò 8 à 쉱 ò d ò

AC147556 185215 bp DNA linear HTG 17-DEC-2003 Mus musculus chromosome UNK clone RP23-480N14, WORKING DRAFT SEQUENCE, 11 unordered pieces.

AC147556 CI:39979584
HTG; HTGS PHASE1; HTGS DRAFT; HTGS\_FULLTOP.

Mus musculus
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mamania; Eutheria; Rodentia; Sciurognathi; Muridae; Musinae; Mus.

Milson,R.K. RESULT 4 AC147556 LOCUS DEFINITION

The sequence of Mus musculus clone Unpublished (base 1 to 185215) Wilson, R. K. ACCESSION VERSION KEYWORDS SOURCE ORGANISM REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL

Park Forest 4444 Center, Wilson, R.K. Direct Submission Submitted (17-DEC-2003) Genome Sequencing

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NOTE: This is a 'working draft' sequence. It currently consists of 11 contigs. The true order of the pleces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                            Sequencing vector: M13; 0%
Sequencing vector: M13; 0%
Sequencing vector: plasmid; 100%
Chemistry: Dye-primer ET; 0% of reads
Chemistry: Dye-terminator Big Dye; 100% of reads
Assembly program: Pirap; version 0.990319
Consensus quality: 194611 bases at least Q40
Consensus quality: 196848 bases at least Q30
Consensus quality: 198294 bases at least Q20
Insert size: 182000; agarose-fp
Insert size: 252319; sum-of-contigs
Quality coverage: 13.47 in Q20 bases; sum-of-contigs
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1120 2637: contig of 1418 bp in length
1220 2637: contig of 1418 bp in length
1230 2737: gap of unknown length
2738: 5059: contig of 2322 bp in length
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Center code: WUGSC
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                                                                                                                                                                                                                                                                                                             Length 185215;
                                                                                                                                                                                                                                                                                                          Query Match
94.4%; Score 1599.8; DB 2; Length
Best Local Similarity 97.8%; Pred. No. 0;
Matches 1668; Conservative 0; Mismatches 22; Indels
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181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC

co- receptor, that is expressed on leukocyte and other organs Unpublished 2 (bases 1 to 1809) Suzuki, G. Direct Submission Submitted (29-JAN-1997) Gen Suzuki, National Institute of Radiological Sciences, Division of Radiation Health; 4-9-1, Anagawa, Inage-ku, Chiba, Chiba 263, Japan [E-mail:geuzuki@unmx1.nirs.go.jp, Tel:043-251-2111,		72 1153 72 1153 72 1153 72 1153 72 1153 72 1153 72 1153 73 1153 74		Query Match 94.2%; Score 1596.2; DB 10; Length 1809; Best Local Similarity 97.7%; Pred. No. 0; Matches 1666; Conservative 0; Mismatches 23; Indels 16; Gaps 4;	1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG 60 
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(db.xre MMLESTRPT 1575 bp mRNA linear ROD 11-NOV-1996 M.musculus mRNA for leukocyte-dervied seven transmembrane domain receptor. м • 170 Moepps, B., Frodl, R., Kessler, H., and Gierschik, P.
cDNA cloning and genomic organization of a leukocyte-derived seven
transmembrane domain receptor (LESTR) from mouse: a murine
homologue of the human HIV-1 entry cofactor fusin
Unpublished
2 (bases 1 to 1575) X99582.
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189582.1 GI:1666648
Mus musculus (house mouse)
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Mus musculus
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus 60 Moepps, B.
Direct Submission
Submitted (19-7UL-1996) B. Moepps, Universitaet Ulm,
Submitted (19-7UL-1996) B. Moepps, Universitaet Ulm,
Pharmacology/Toxicology, Albert-Einstein Allee 11, D-89081 Ulm,
Revised by author 11-NOV-96
On Nov 12, 1996 this sequence version replaced gi:1657351. domain 13; Gaps seven transmembrane Query Match

81.7%; Score 1383.8; DB 10; Length 1575;

Best Local Similarity 98.3%; Pred. No. 2.8e-293;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CICTITGECATCACCACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG
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111. .2305

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2306. .3770

/number=2

3693. .3698
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1080 3565 3145 3205 1020 3325 1136 3445 1192 3505 1247 1307 3625 1367 1427 3685 AC122097
190149 bp DNA linear HTG 15-NOV-2002
Rattus norvegicus clone CH230-108A24, WORKING DRAFT SEQUENCE, 4
unordered pieces. 840 900 Rattus.

1 (bases 1 to 190149)

Muzny, D.Marie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J.,

Allen, C., Allen, H., Alsbrooks, S., Amin, A., Anguiano, D.,

Anyalebechi, V., Aoyagi, A., Ayodeji, M., Baca, E., Baden, H.,

Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, F.,

Biswalo, K., Blair, J., Blankenburg, K., Blyth, P., Brown, M.,

Bryant, N., Buhay, C., Burch, P., Burrell, K., Calderon, E., AC122097 AC122097 4 GI:25008263 HTG; HTGS PHASE1; HTGS DRAFT; HTGS\_FULLTOP. Rattus norvegicus (Norway rat) Rattus norvegicus (Norway rat) Rattus norvegicus (Nordata; Craniata; Vertebrata; Euteleostomi; Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; 3086 ATCGACTCCTTCATCCTTTTGGGGGTCATCAAGCAAGGATGTGGACTTCGAGAGCATCGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCCACTGTTGCCTGAACCCCATC 3026 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC 961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 3266 AGCAGAGGTCCAGCCTCAAGATCCTTTCCAAAGAAAAGCGGGGTGGACACTCTTCCGTC 3626 TATCTGTGTGGACTGTAGAACTGTAGAGGAAGAAGAACTGAACTTGCAGAATGTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 3386 AATATATATATATATATATATAAAAACTATTTTTATGTTACACATTTTCCAGATATA 1193 TATGITCCCCCAGATITITGGAGGGITIGACTIAATITATATAAATA-----TTGTITITI GTTTGTTTCANGTGAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTT 3566 GTTTGTTTCATGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTT TATCTGTGTGTAGACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTG ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC 1081 A----ATATATATATATATGATAAAGAACTTTTTTATGTTACATATTTCCAGATATA GAGCACCCCACCC 1446

Cardenas, V., Carter, K., Cavazos, I., Ceasar, H., Center, A., Chardon, C., Chardon, C., Chardon, C., Chardon, C., Chardon, C., Douza, L., Davilla, M., Cava, C., Coyle, M., Cree, A., D'Souza, L., Davilla, M., Davis, C., Davy-Carroll, L., De Anda, C., Dederich, D., Delagado, C., Deramo, C., Ding, Y., Dinh, H., Divya, K., Dragado, C., Perla, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Fand, C., Hava, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Hamilton, C., Koyais, C., Kraft, C.L., Labow, H., Levan, J., Lewis, L., Liu, Y., London, P., London, B., London, C., Liu, W., Liu, Y., London, P., London, P., London, P., London, P., London, C., Liu, W., Liu, Y., London, P., London, P., London, C., Mandan, D., Manten, E., Manda, P., Martin, R., Mand, D., Manda, P., Martin, R., Mand, D., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P., Manda, P Unpublished
2 (bases 1 to 190149)
Worley, K.C. REFERENCE AUTHORS TITLE JOURNAL

REFERENCE

AUTHORS TITLE JOURNAL

COMMENT

Direct Submission

Submitted (22-MAY-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

3 (bases 1 to 190149)

3 (bases 1 to 190149)

3 Star Genome Sequencing Consortium.

Direct Submission

Submitted (15-NOV-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On Nov 15, 2002 this sequence version replaced gi:23269619.

The sequence in this assembly is a combination of BAC based reads and whole genome shotgun sequencing reads assembled using Atlas and whole genome shotgun sequencing reads assembled using Atlas in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig-scaffold, individual sequence contigs are ordered and oriented, and separated by sized gaps filled with Ns to the estimated size. The Sequence contigs within a contig-scaffold that consist entirely of whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence reads. Both end sequences and whole genome shotgun sequence only contigs will be indicated in the feature

Center: Baylor College of Medicine Center code: BCM

NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank\_draft\_data.html). ONTE: This is a "working draft' sequence. It currently consists of 4 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved. Center project Information
Center project name: GXCR
Center clone name: GR20-108A24
Center clone name: CH30-108A24
Assembly program: Phrap, version 0.990329
Consensus quality: 119135 bases at least Q40
Consensus quality: 181484 bases at least Q30
Consensus quality: 183011 bases at least Q20
Estimated insert size: 187231; sum-of-contigs estimation
Quality coverage: 7x in Q20 bases; sum-of-contigs estimation 40067; contig of 40067 bp in length 40068 40167; gap of unknown length 40168 114660; contig of 74493 bp in length 11461 114760; gap of unknown length 114761 188186; contig of 73426 bp in length 188187 188286; gap of unknown length 188287 190149; contig of 1863 bp in length Location/Qualifiers 1. .190149 /organism="Rattus norvegicus" /mol\_type="apenomic DNA" /db\_xref="taxon:10116" /clone="CH230-108A24" Contact: hgsc-help@bcm.tmc.edu source FEATURES ORIGIN

Query Match
69.0%; Score 1168.2; DB 2; Length 190149;
Best Local Similarity 84.6%; Pred. No. 9.1e-246;
Matches 1456; Conservative 0; Mismatches 143; Indels 122; Gaps 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG

20902 CTCTTTGTCALCACACTCCCCTTCTGGGCAGTGGACGCCATGGCTGACTGGTACTTGGG 20961 20962 ABATTITTATGTAAGGCTGTGCATATCATCTACACCGTCAACCTTTACAGCAGTGTTCTC 21021 20782 TITATCAICTICTIGACIGGCAIAGIGGGCAAIGGGITGGTAAICCIGGICAIGGGITAC 20841 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 241 CICITIGICALCACACICCCTICIGGGCAGITGAIGCCAIGGCIGACTGGGIACTITGGG 181 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 유 g ð B ⋧ d à g & g 8 ò

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421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 21082

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/product = fusin homolog"

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GINGLOFESTYHKWA SITEALAFFHCCINFILYAFLGAKFKSSAQHALNSWSRGSSIK

LLSKGKRGGHSSVSTESESSSFFHSS"
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Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
1 (Sass 1 to 1223)
Heesen,M., Berman,M.A., Benson,J.D., Gerard,C. and Dorf,M.E.
Cloning of the mouse fusin gene, homologue to a human HIV-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
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USA
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                                                                   -----GITITITICITICAGGITTATAAGGAGATTAATTAAGAAAATGTAC
CTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGGTTTTT
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                       22142 CTGTAGAAGATGGCACTTAAAACCAAAGCCTGAAATGGT-ATAGAAATGCTGG----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             spanning receptor;
                                                                                                                                                                                                MWU59760 1223 bp mRNA linear
Mus musculus fusin homolog mRNA, complete cds.
U59760
                                                                                                           1654 AGTCTTGTATTACATTGTTAATAAAGTCAATGATAAACTT 1694
                                                                                                                                                                                                                                                                                                                                                                                                                               SUBJECT.

(Dases 1 to 1223)

Heesen,M., Berman,M.A., Gerard,C. and Dorf,M.E.

Direct Submission
Submitted (02-UUN-1996) Pathology, Harvard Medi
Longwood Avenue, Boston, MA 02115, USA

Location/Qualifiers
                                                                                                                             AGTCTTGTATTATGTTGTTAATAAAGTCAATGGTAAACTT
                                                                                                                                                                                                                                                                                                                                                                                 J. Immunol. 157 (12), 5455-5460 (1996)
97113334
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chemokine-receptor like"
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Corganism="Mus musculus"
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                                                                                        ---GGCAGGTACATCTGTGACCGCCTTTACCCCGACAGCCTGTGGATGGTGTTCCAG
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|product="CXCR-4" |standard\_name="CXC chemokine receptor 4"

/db\_xref="texon:10090" /clone\_lib="lambda fix (TM) II" /dev\_gtage="adult" <1. .259 /number=1

260. .1422 /gene="lcr-1" 260. .>1422 /gene="lcr-1"

Location/Qualifiers 1. 1422 /organism="Mus musculus' /mol\_type="genomic DNA" /strain="129SV"

exon

musculus lcr-1 gene,

'function="receptor for chemokine SDF-1"

ö 319 120 379 180 439 240 499 300 559 360 619 420 619 480 9 260 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG 440 CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACTGTCAGTGGCTGACCTC arcendecerreareagecradacederaceredecearrerecaegecaecaaeaeae AGGCCAAGGAAACTGCTGGAAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 320 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 380 rrcarcarcricarcrescrescarasrescarassarresarasresresresresresreses CAGAAGAAGCTAAAGCAACCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCCACGCCACCAACAGTCAA Gaps 1422; . 0 Length 68.0%; Score 1151.8; DB 10; Lengt ilarity 99.4%; Pred. No. 2.7e-242; Conservative 0; Mismatches 7; Indels Query Match Best Local Similarity Matches 1156; Conserv 620 421 g ò

ROD 31-OCT-1996

linear

DNA

1422 bp

MMLCR13

RESULT 1 MMLCR13 LOCUS

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CXC chemokine receptor 4; CXCR-4; lcr-1 gene...

Z80112.1 G1:2632100
CXC chemokine receptor 4; CXCR-4; lcr-1 gene...
Mus musculus (house mouse)
Mus musculus (bouse in the receptor Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
E 1 (bases 1 to 1180)
C The mouse homologue of the human HIV coreceptor CXCR-4 (FUSIN):
High expression in thymus and lymphoid tissues
Unpublished
C (bases 1 to 1180)
C Lipp, M.
C (bases 1 to 1180)
C Lipp, M. Direct Submission Submitted (11-SEP-1996) Martin Lipp, Max-Delbrueck-Center for Molecular Medicine, MDC, Robert-Roessle-Strasse 10, BERLIN-BUCH, D-13122, GERMANY Mus musculus lcr-1 gene. Z80112 REFERENCE AUTHORS TITLE JOURNAL REFERENCE AUTHORS TITLE JOURNAL

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On Nov 21, 1997 this sequence version replaced gi:1542888.

Location/Qualifiers

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Rattus norvegicus clone CH230-175010, \*\*\* SEQUENCING IN PROGRESS AC107097 RESULT 12 AC107097/c LOCUS DEFINITION ACCESSION

VERSION KEYWORDS SOURCE ORGANISM

REFERENCE AUTHORS

Muzny, D. Marzie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J., Albroy, D. Marzie., Metzker, M. Lee., Abramzon, S., Adams, C., Alder, J., Alshroyces, S., Amin, A., Anguiano, D., Anyalebechi, V., Aoyadi, A., Ayodeji, M., Baca, B., Baden, H., Baldwin, D., Bandaranaike, D., Barber, M., Barnstead, M., Benahmed, F., Blankenburg, K., Blyth, P., Brown, M., Bryan, N., Buhay, C., Burch, P., Burch, P., Burch, P., Burch, S., Carderon, E., Carderon, S., Carderon, C., Carderon, C., Carderon, C., Cockrell, K., Cako, Y., Chen, Z., Chen, G., Cockrell, R., Cox, C., Coyle, M., Cree, A., D'Souza, L., Davila, M.L., Davis, C., Davy-Carroll, L., De Ada, C., Dederich, D., Delgado, O., Denson, S., Deramo, C., Ding, Y., Dinh, H., Divya, K., ACI07097.5 GI:30580624 HTG; HTGS\_PHASE2; HTGS\_DRAFT; HTGS\_ENRICHED. Rattus norvegicus (Norway rat) Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.

Draper.H., Dugan-Rocha,S., Dunn,A., Durbin,K., Duval,B., Eaves,K., Egan,A., Escotto,M., Eugene,C., Evans,C.A., Falls,T., Fan,G., France,S., Finley,M., Flagg,N., Forbes,L., Foster,M., Gabra,A., Garcia,A., Garner,T., Garza,M., Gabregocrygis,E., Geer,K., Gall,R., Garcia,A., Garner,T., Garza,M., Gunaratne,P., Haaland,W., Hamil,Co., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hamilton,C., Hollering,D., Gackson,A., Holling,B., Man,B., Man,C., Kraft,C.L., Lebow,H., Levan,J., Idebird,D., Jolvet,A., Karpathy,S., Kelly,S., Kelly,S., Kelly,S., Kelly,S., Kelly,S., Kelly,S., Kan,C., Lowis,L., Li,Z., Liu,J., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Liu,W., Mandun,P., Martin,R., Martin,R., Martin,R., Martin,R., Martin,R., Martin,R., Martin,R., Martin,R., Martin,R., Martin,R., Man,C., Rede,L., Norde,L., Norde,L., Norde,L., Perca,D., Norde,L., Perca,D., Perca,C., Perca,C., Collega, R., Reeves,R., Regter,M., Roaf,R., Reily,B., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Relly,W., Welse,W., Roes,W., Roes,W., Relly,W., Welse,W., Relly,W., Welse,W., Relly,W., Welse,W., Welse,W., Woley,W., Welse,W., Woley,W., Welse,W., Wels

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COMMENT

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2 (bases 1 to 240931)

B Worley.K.C.

Submitted (16-JAN-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

Baylor Plaza, Houston, TX 77030, USA

S Rat Genome Sequencing Consortium.

Direct Submission

AL Submitted (13-MAY-2003) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA

On May 13, 2003 this sequence version replaced gi:23115278.

On May 13, 2003 this sequencing reads assembled using Atlas and whole genome shorgun sequencing reads assembled using Atlas in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contig described in the feature table below represents a scaffold in the Atlas assembly (a 'contig-scaffold'). Within each contient, and separated by sized gaps filled with Ns to the estimated size. The sequence contigs are ordered and there may be sequence contigs within a contig-scaffold that consist entirely of whole genome shorgun sequence reads. Both end sequences and whole genome shorgun sequence reads. Both end sequences and whole genome shorgun sequence reads. Both end sequences and whole genome shorgun sequence reads. Both end sequences and whole genome shorgun sequence reads. Both end sequences and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence reads. Both end sequence and whole genome shorgun sequence and whole genome shorgun sequence and whole genome shorgun sequence and whole genome shorg ....- Genome Center

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\*\*NOTE: This is a "working draft' sequence. It currently

\*\*NOTE: This is a"working draft' sequence. It currently

\*\*Consists of 1 contigs. Gaps between the contigs

\* are represented as runs of N. The order of the pieces

\* is believed to be correct as given, however the sizes

\* of the gaps between them are based on estimates that have

\* provided by the submittor.

\* This sequence will be replaced

\* by the finished sequence as soon as it is available and

\* the accession number will be preserved.

\* I 240931. contig of 240931 bp in length.

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Consensus quality: 216793 bases at least Q40
Consensus quality: 21224 bases at least Q30
Consensus quality: 221224 bases at least Q20
Estimated insert size: 228277; sum-of-contigs estimation
Quality coverage: 6x in Q20 bases; sum-of-contigs estimation 237318 GAAATITITATGIAAGGCTGTGCATATCATCTACACCGTCAACCTITACAGCAGTGTTCT CATCCTGGCCTTCATCAGCCTGGACCTCGCCATTGTCCACGCCACCACCAGTCA 240 CCTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGG 180 CCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCT Query Match 65.8%; Score 1114; DB 2; Length 240931; Best Local Similarity 84.2%; Pred. No. 7.4e-234; Matches 1400; Conservative 0; Mismatches 140; Indels 122; Gaps end\_sequence:BH357332"
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OF. PO. OT OT AUTHOR

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540	TGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTTCA 59
600	SCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCTCTCT
660	SGGCCACCAGAAGCGCAAGGCCCTCAAGAC 71
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780	TICCTICATCCTITIGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCALTGT 83
840	PAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCAT 8
900	TGCCCAGCATGCACTCCAACTCCAT 959
960	CAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGGGGGG
1020	arggagtcagaatcctccagttttcactccagctaacccttatgcaaagacttata 107 
1080	CCA 113       CCA 236
1131	TIGDACAGITITITITITITITAAITGACIGITGGGAG 11
1191	TCCTCTAGITITIGIGAGGITIGACTIAAITIAIATAAAIAI 123 
1240	STITITIGITIGITICAIGAAIGAGGGCGTCTAGGCAGGACCTGTGGCCAAG 1: 
1293	AH-H
1353	CCAGAATGTGTGGTAAATTGAATAAGCTAGCGTGATCCTCAGCTGTTGCTGCATAA 1. 
1413	TOTICATICGAGGAGGACCCCCACCCCCACCCCCACCCCCATTCTTAAATIGT

------Griric 236139 -----GITITITICITICABGTICAAGGTICATITICAGTACCTACAAATGTA 236034 236086 TCTGTAAAAGATGGCACTTAAAACCAAAGCCTGAAATGGTGGTAGAAATGCTGGGGTTTT 1592 1652 ROD 13-DEC-1996 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus. I (bases 1 to 3366) Heesen, M., Berman, M.A., Benson, J.D., Gerard, C. and Dorf, M.E. Cloning of the mouse fusin gene, homologue to a human HIV-1 TCTGTAGAAGATGGCACTTAAAACCAAAGCCTGAAATGGT-ATAGAAATGCTGG-----TITIGITITGITITITITICAGITITICAGAGIAGATIGACITICAGICCCIACAAAIGIA Harvard Medical School, 200 USA Mus musculus fusin (CXCR-4) gene, complete cds. U65580.1 GI:1731650 2 (bases 1 to 3366)
Peesen,W., Berman,M.A., Gerard,C. and Dorf,M.E. Direct Submission
Submitted (30-JUL-1996) Pathology, Harvard Medical Longwood Avenue, Boston, MA 02115, USA
Location/Qualifiers
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// Organism=Mus musculus"
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// perrain="C57BL/6J" co-factor J. Immunol. 157 (12), 5455-5460 (1996) 8955194 <u>.</u> 16. .>2307 /gene="CXCR-4" /note="alternate intron 22. .2307 /db\_xref="taxon:10090" L. .3366 'gene="CXCR-4" TIGGITGIGCIGIGIG------Mus musculus (house mouse) Mus musculus 1. .15 /gene="CXCR-4" /note="alternate 1. .21 /gene="CXCR-4" /number=1 1473 1533 1593 236085 236159 236138 RESULT 13
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RESULT 14 RNU54791 LOCUS DEFINITION ACCESSION VERSION	RNU54791 Rattus norvegicus chemokine receptor LCR1 mRNA, complete cds. U54791 U54791.1 GI:1354504	& 8 & ·	
KEYWORDS SOURCE ORGANISM	Rattus norvegicus (Norway rat) Rattus norvegicus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;	සු දු ස	464 AGCGCGAGGAAGG 481 CTCCTGACTATAC 492
REFERENCE AUTHORS TITLE	Rattus. No tases 1 to 1362) Wong,M.L., Xin,W.W. and Duman,R.S. Rat LCR1: cloning and cellular distribution of a putative chemokine	& ସ	541 GATGACAGGTACA          527GGCAGGTACA
JOURNAL MEDLINE PUBMED		රු සි	601 TTCCAGCATATA          584 TTCCAGCACATC
REFERENCE AUTHORS TITLE	2 (bases 1 to 1362) Wong,M. Wong,M. Sibmist Submission Sibmitted (11-app-1996) Ma-Ti	yo t	661 ATCATCATCTCT
FEATURES SOURCE	Branch, National Institutes of Realth, NIMH, Building 10 Room 3S231, 10 Center DR MSC 1284, Bethesda, MD 20892-1284, USA Location/Qualifiers	3 & 8	
	/organism="Rattus norvegicus" /mol_type="mRNA" /strain="Sprague-Dawley" /db_xref="taxon:10116"	<b>상</b> 점	781 ATCGACTCCTTCJ             764 ATCGATTCCTTCJ
CDS	/clone="RLCR1" 441042 /codon_gtart=1 /product="chemokine_receptor_LCR1"	රු සි	841 CACAAGTGGATC           824 CACAAGTGGATC
	/ DYCCEIN 1.13.4505." / db_xref="G1.13.4505." / db_xref="G1.13.4505." / translation="MBTYSDNYSEEVGSGDYDSNKEPCFRDENBIFNRIFLPTIYFI / translation="MBTYSDNYSEEVGSGDYDSNKEPCFRDENBIFNRIFLPTIYFI IFLTGIVGNGLVILVMGYQKKLRSMTDKYRLHLSVADLLFVITLPFSDAMADWYFGKF LCKAVHIIYTVNLYSSYLILAFISLDRYLA.VHATNSQSARKKLABKADIFFNDVSQG DGRYICDRLYPDSLWMVVFQPQHINVGLILIPGIVILSGYCIIISKLSKGHQKRKAL KTTTVVILITAPPARAJI.PVYVGTSINFILI.RVIKGGFRFRSVVHWMISTTRALAFHCC	o o o	901 CTCTATGCCTTCC 
ORIGIN	LNP1LYAFLGAKFKTSAQHALNSMSRGSSLKILSKGKRGGHSSVSTESBSSFHSS"	원 6	944 AGCAGAGGCTCC
Query Match Best Local Matches 116	Match 55.9%; Score 946.4; DB 10; Length 1362; ocal Similarity 84.8%; Pred. No. 3.6e-197; stationservative 0; Mismatches 116; Indels 93; Gaps 6;	3 B 3	
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Db	1244 TITITCTGTTGTTTGTCTGTTTCACGTGAATGAGTGTCTAGGCAGGACCTGTGGCCAAGT 1303	Ор	532 GATGACAGATATATCTGTGACCGCTTCTACCCCCAATGACTTGTGGG
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RESULT 15 AX481810 LOCUS DEFINITION ACCESSION VERSION	AX481810 N Sequence 11 from Patent WO02057308. AX481810 AX481810.1. GI:22316633	8 8 8	661 ATCATCATCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAA 652 ATTACATCATCCCAAGCTGCTACACACTCCAAGGGCCACCAGAAGCGCAA 721 ACAGTCATCCTCCATCCTAGCTTTCTTTGCTGGCTGCCCAAATTA 712 ACAGTCATCCTATCCTGGCTTTCTTTGCTGGCTGGCTGCTAATTA 712 ACAGTCATCCTGATCCTGGCTTACTTACTACTGGCTGGCT
KEYWORDS SOURCE ORGANISM	Homo sapiens (human) Homo sapiens Bukaryota, Metazoa, Ch Mammalia, Eutheria, Pr	8 8 6	
AUTHORS AUTHORS TITLE JOURNAL FEATURES	Demaison, Ullman, C. Nucleic a Patent: W	3 8 8 8 8	832 CACAAGTGGATTTCCATCAGGGGCCTAGGTTTCTTCCACTGTG 901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGC 1
Sourc	/ organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606"	දු පු	
Query M Best Loc Matches	Ouery Match 55.1%; Score 933.4; DB 6; Length 1582; Best Local Similarity 81.8%; Pred. No. 2.6e-194; Matches 1154; Conservative 0; Mismatches 216; Indels 41; Gaps 5;	& <b>a</b> .	
çç qa	1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG 60 	QQ	
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oy ob	361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420	Search Job tim	cch completed: May 17, 2004, 12:10:55 time : 6860.38 secs
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TTCCAGATATAAGAG 1140 || || || || || || || TTCAGATATAAAAG 1123 recaaagactrarar 1080 --CACAGATGTAAAA 1063 GGGAGTTTATGTTCC 1200 |----CTTGTGTTTC 1177 9 651 TATGTGGGGATCAGC 780 || || || || || || || || TACATTGGGATCAGC 771 rrcgagaggarrgrg 840 TGCCTGAACCCCATC 900 || || || || || || || || || TGTCTGAACCCCATC 891 GCACTCAACTCCATG 960 || |||| || ||||| TTTGAGAACACTGTG 831 PRGETTGTGTTCCAG 591 COTCOCOGOTACO 6

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SUMMARIES

Description		Aav46370 Nucleic a	Abs64793 CXCR4 rec	Aaz27610 Human CXC	Aaa61656 Human CXC	Aaz40014 CXCR4 cod	-	Aai65467 Nucleotid	Abs53992 DNA encod		Abx08779 Angiogene		Abz69886 Nucleotid	Abz42642 Human CXC	Adc98645 Human CXC	Abz35348 Human gen	Adb47320 Human cDN	Aaq80521 Human mon	Aaq99007 Chemokine	Aax15882 cDNA enco	Aaa34774 Human ade	968	Aah99951 CXCR4 gen
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Score	1694	1692.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4
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This sequence encodes the mouse CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare ingredient a substance capable of potentiating cXCR4, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a

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## ALIGNMENTS

CXCR4; mouse; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss. CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers. Tachibana K; Disclosure; Page 50-51; 63pp; Japanese. AAZ27611 standard; DNA; 1758 BP 99WO-JP001448. 98JP-00095448. Mouse CXCR4 coding sequence (first entry) (CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T. Ė Kishimoto T, Nagasawa WPI; 1999-591042/50. P-PSDB; AAY39994 WO9948528-A1. 23-MAR-1999; 24-MAR-1998; 16-DEC-1999 30-SEP-1999. Mus sp RESULT 1 AAZ27611 

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CXC chemokine pre-B cell stimulatory factor PBSF/SDF-1; HIV infection;
screening; inhibitor; AIDS; ds.
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99.9%; Score 1692.4; DB 2;
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Matches 1693; Conservative 0; Mismatches 1;
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                                                       97WO-JP000299
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Yoshie O;
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P-PSDB; AAW64778.
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Nakajima T,
                                                       07-FEB-1997;
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New polypeptide capable of binding nucleic acids for treating or preventing a disease caused by a virus or a disease associated with an immune response, particularly autoimmune diseases e.g. inflammation or rheumatoid arthritis.
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C, Choo Y;
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07-FEB-2001; 2001GB-00003032.
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Girdlestone J;

The present invention relates to a new polypeptide capable of binding to a nucleic acid comprising a receptor nucleotide sequence which can function as a receptor for virus infection or is involved in an immune response. The molecules of the invention are useful in the treatment or prevention of a disease caused by a virus or of a disease associated with an immune response. Particularly an autoimmune disease. The zinc finger polypeptide capable of an immune response. The nucleic acid encoding such a polypeptide can be used to modulate transcription of a receptor nucleotide sequence. The nucleic acid sequence comprising a receptor nucleotide sequence comprising a receptor nucleotide sequence of binding to a nucleic acid sequence comprising a receptor nucleotide sequence, where the receptor is capable of functioning as a receptor for infection by the virus or is involved in an immune response, or a nucleic acid encoding such a polypeptide in an immune response. The polypeptides may further be used to treat or prevent various diseases caused by a virus or of a disease associated with or caused by malfunction of the receptor as the TNFR1 receptor, such as autoimmune attrities or myocardities. The present uncleic acid sequence represents a contract or attrities or myocardities. The present uncleic acid sequence represents a contract or as described in the invention

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Similarity 81.8%; Pred. No. 4.2e-207; Similarity 81.8%; Pred. No. 4.2e-207; Conservative 0; Mismatches 216; Indels 41;
Sequence 1582 BP; 386 A; 376 C; 333 G; 487 T; 0 U; 0 Other;
                                                       Query Match
Best Local Simi
Matches 1154;
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ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAG

AATATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1140 1020 101 126 180 240 246 300 306 360 366 420 426 480 486 540 009 591 099 651 720 711 780 771 840 831 900 891 960 951 120 186 531 ATCCTGCCTTCATCAGCTGGACCGGTACCTCGCCATGTCCACGCCACCAACAGTCAA ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGCGCAAGGCCCTCAAGACG ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG cicitàtecritichredadccanariranancererecenedacerenere 247 CTCTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTAACTTTGGG AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA TITCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGTCCTGCTGTTTGT CICIAIGCCIICCICGGGGCCAAGIICAAAAGCICIGCCCAGCAIGCACICAACICCAIG AGCAGAGGCTCCAGGCTCCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGGTAACCCTTATGCAAAGACTTATAT 67 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 127 TCCATCATCTTCTTAACTGGCATTGTGTGTGATGGATTGGTCATCCTGGTCATGGGTAAC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG AAATITITIGIGIAAGGCIGICCAIAICAICIACACTGICAACCICIACAGCAGCGITCIC 307 AACTICCIAIGCAAGGCAGTCCAIGICAICIACAGAGCAGTGACCTCTACAGCAGGGGGTGTCCTC CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCCACTGTTGCCTGAACCCCATC GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC TTCCAGCATATAATGGTGTGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 1012 181 187 361 487 541 601 592 652 712 781 772 841 832 901 892 961 952 1081 121 241 301 367 421 481 532 661 721 8 8 윱 g 상 점 õ 셤 ò g 8 6 à g ò g Š g ò 원 ઠે 셤 \$ B \$ B \$ 8 6 8 6 8 ઠે ò

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RESULT 4 AAZ27610

AAZ27610 standard; DNA; 1588 BP. AAZ27610; CXCR4; human; neovascularisation; inhibitor; solid cancer; therapy; tissue repairing agent; vascularisation; ss.

Human CXCR4 coding sequence

16-DEC-1999 (first entry)

Homo sapiens

30-SEP-1999

99WO-JP001448 23-MAR-1999; 98JP-00095448 24-MAR-1998;

(CHUS ) CHUGAI SEIYAKU KK. (KISH/) KISHIMOTO T.

Tachibana K;

Kishimoto T, Nagasawa T,

WPI; 1999-591042/50. P-PSDB; AAY39993.

CXCR4-potentiating agents and methods useful for inhibiting neovascularization, and treating solid cancers.

Disclosure; Page 48-49; 63pp; Japanese.

This sequence encodes the human CXCR4 protein. The invention relates to remedies inhibiting neovascularisation, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. Based on a finding that vascularisation is inhibited in a CXCR4 knockout mouse, it becomes possible to prepare remedies inhibiting vascularisation which contain as the active ingredient a substance capable of potentiating CXCR4, remedies for solid cancer, remedies for diseases pathologically caused by neovascularisation and tissue repairing agents containing as the active ingredient a substance capable of potentiating CXCR4. It is also possible to establish methods for treatment with the use of these remedies 

Sequence 1588 BP; 396 A; 375 C; 334 G; 483 T; 0 U; 0 Other;

	Query Mato Best Loca Matches 13	ch 1 Similarity 81.8%; Pred. No. 4.2e-207; 154; Conservative 0; Mismatches 216; Indels 41; Gaps 5;
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1140 1200 1186 1320 1072 1260 1242 1243 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCTCGTAG 1302 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGGGTGTAGTTAATCACGTAAA 1354 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT TCCACTGAGTCTGAGTTTTCACTCCAGCTAA-----CACAGATGTAAAA 1073 GACTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTCAGATATAAAAG GAATGAGCCTCTAGGCAGGACCTGTGGCCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG Antisense oligonucleotide, useful as inhibitor in preventive or remedy Trracrititicicaacititaaricacitaritara----taaatititititicitari NO:2 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC NO:3 NO:1 ij ü a CXCR4; human CXC chemokine receptor 4; HIV infection inhibition; expression inhibition; antisense therapy; ss. /\*tag= a /\*tag= a //bound moiety= "Antisense oligonucleotide SEQ (AbAA61652)" /\*tag= b /\*tag= b /\*tag= b (AbAA61653)" (AbAA61653)" SEO /\*tag= b /bound moiety= "Antisense oligonucleotide (AAA61654)" GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 Human CXC chemokine receptor (CXCR4) cDNA <u>AATATATATATATATATGATAAGAACTTT</u> Location/Qualifiers ВР Ë AAA61656 standard; DNA; 1664 99WO-JP006534 98JP-00332760 (HISM ) HISAMITSU PHARM CO WPI; 2000-400081/34 Goto T, WO200031271-A1 sapiens 24-NOV-1999; 24-NOV-1998; 23-OCT-2000 Key primer bind primer bind primer\_bind 1187 1021 Iijima O, 1081 1321 1381 1021 1133 1201 1261 1303 1355 AAA61656 Ношо RESULT 5
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                                                The invention relates to human CXC chemokine receptor 4 (CXCR4)-specific antisense oligonucleotides (AAA61652-A61654). The oligonucleotides hybridise with the CXCR4 gene and/or CXCR4 RNA, thereby preventing its expression. As CXCR4 plays a role in HIV infection, the antisense oligonucleotides act as inhibitors of this process. Compositions containing the antisense oligonucleotides are useful as prophylactic therapeutic agents for HIV infection. Such compositions are highly efficacious for inhibiting infection with HIV. The present sequence represents a human CXCR4 cDNA
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                                        This sequence represents a CXCR4 coding sequence. The invention relates to antisense oligonuclectides that hybridise specifically with chromosomal DNA and/or RNA encoding a CXCR4 protein, and inhibit the expression of the CXCR4 protein. The antisense oligonuclectides can be used in an anti-HIV agent. The oligonuclectides and the anti-HIV agent are highly effective as a preventive and treating agent for HIV infection
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                                                                                                                                                                                                                                           Query Match 55.1%; Score 933.4; DB 3; Length 1664; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216; Indels 41;
                                                                                                                                                                                                  Sequence 1664 BP; 414 A; 398 C; 359 G; 493 T; 0 U; 0 Other;
Disclosure; Page 5-6; 6pp; Japanese.
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Human; neuropeptide Y; NPY; bone disease; bone mass; gene therapy; cerebrospinal fluid; CSF; inositol phosphate; IP; Paget's disease; fracture; extracellular signal-regulated kinase; ERK; osteoporosis; osteopenia; bone metastasis; neurotransmitter; osteogenic; NPY Y3 receptor; ds. Human neuropeptide Y (NPY) Y3 receptor DNA. Location/Qualifiers 89. .1147 AAD12801 standard; DNA; 1679 (first entry) Homo sapiens 16-OCT-2001 AAD12801, 

/\*tag= a /product= "Human neuropeptide Y (NPY) Y3 WO200153477-A1

receptor

26-JUL-2001

22-JAN-2001; 2001WO-US002040 20-JAN-2000; 2000US-00489872 (BAYU ) BAYLOR COLLEGE MEDICINE

ä Ducy Karsenty G, Σ Amling 

WPI; 2001-488709/53 P-PSDB; AAE06690.

Treating or preventing reduced bone mass, e.g. osteoporosis, by reducing the level of neuropeptide Y activity in blood or cerebrospinal fluid.

Example 7; Page 84-85; 102pp; English

The present invention relates to a method for treatment or prevention of bone diseases characterised by loss of bone mass, comprises administering the a mammal a compound that lowers the level of neuropeptinde Y (NPY) in the serum or cerebrospinal fillud (CSF) or a compound that lowers the level of inositol phosphate (IP) or extracellular signal-regulated kinase (ERK). The method is specifically used to treat (including by gene therapy) or prevent osteoprosis, osteopenia or Paget's disease, but may also be used e.g., in cases of fractures or bone metastases. These diseases may also be diagnosed by detecting elevated NPY levels, including monitoring of treatment, assessing efficacy of compounds in sequence is a human NPY 33 receptor DNA

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

Gaps 41; Length 1679; Indels Query Match 55.1%; Score 933.4; DB 4; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216;

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120 180 163 223 283 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC GAACCCTGTTTCCGTCAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 1 ATATACACTICIGAIAACTACTCTGAAGAAGTGGGGTCTGGAGACTAIGACTCCAACAAG TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 61 164 121 g ò 셤 셤 ઠે ઠે

240 343 224 ICCAICAICTICTIAACIGGCAIIGIGGGCAAIGGAIIGGICAICCIGGICAIGGGITAC 181 ò g

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600 GATGACAGGTACATCTGTGACCGCCTTTACCCCGGTAGCCTGTGGATGGTGGTGGTTCAA 541 ે a

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9 TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC 601

02-MAR-2000; 2000US-00517605

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149 ATTATCATCTCCAAGGTGTCACACTCCAAGGGCCACCAGAAGGGCCCTCAAGACC

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28-FEB-2001; 2001WO-US006322

UNIV NEW YORK UNIV NIJMEGEN.

Geijtenbeek Kooyk Y,

Kwon D, Littman DR,

An antibody for the treatment or prevention of HIV-infection comprises gpl20 portion which binds to DC-SIGN or is exposed upon gpl20 binding o DC-SIGN due to concomitant conformational change. WPI; 2001-602565/68.

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Disclosure, Page 126-127; 131pp; English

The specification describes an antibody which is specific for an antigenic fragment of gp120. This antigenic fragment binds to DC-SIGN or is exposed upon gp120 binding of DC-SIGN due to concomitant conformational change. DC-SIGN is a receptor that is specifically expressed on dendritic cells and facilitates infection of T lymphocytes with HIV. DC-SIGN is identical to a HIV-1 gp120-binding C-type lectin. DC-SIGN binds ICAM-3 (which is expressed constitutively on T lymphocytes) with high affinity. The antibody of the invention inhibits the trans dendancement of HIV entry into a T cell or macrophage facilitated by infection. The present sequence represents a human polynuclectide, which is used in the course of the invention 

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TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 TCCACTGAGTCTGAGTTTTCACTCCAGCTAA-----CACAGATGTAAA 1160

1049 1021 1109

AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020

cacaagiggarirccarcaccaaggcccragcrircirccacrgrigicaagcccarc CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG

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1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG

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Human; receptor; DC-SIGN; dendritic cell; T lymphocyte; HIV; gp120; C-type lectin; ICAM3; HIV entry; T cell; macrophage; HIV infection; ss.

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WO200164752-A2

07-SEP-2001

Nucleotide sequence of a human polynucleotide AA165467 standard; DNA; 1679 (first entry) AND SESULT 8
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ABS53992 standard; cDNA; 1679 ABS53992; 

(first entry) 02-DEC-2002

CXC chemokine receptor 4; CXCR4; chemotaxis induction; SDF1a; stromal cell-derived factor lalpha; angiogenesis; atherosclerosis; DNA encoding human CXC chemokine receptor 4 (CXCR4).

restenosis; ischaemic stroke; spinal cord injury; infection; ulcer; human immunodeficiency virus; HIV; acquired immunodeficiency syndrome; AIDS; pain; cancer; benign prostatic hypertrophy; diabetes; obesity; anorexia; bulimia; asthma; Parkinson's disease; acute heart failure; hypotension; hypertension; urinary retention; osteoporosis; stroke; anginal pectoris; wyocardial infraction; benign prostatic hypertrophy; echizophrenia; dyskinesia; Huntingdon's disease; restenosis; inflammatory disease; rheumatoid arthritis; diabetic retinopathy; inflammatory bowel disease; arthritis; diabetic retinopathy; soliflammatory bowel disease; acadiac remodeling; Alzheimer's disease; solid tumour; Kaposi Sarcoma; human; gene; ss.

Homo sapiens

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89. .1147 \*tag= a /product= "CXCR4" /note= "CXC chemokine receptor 4" Socation/Qualifiers

US2002107195-A1

08-AUG-2002

17-SEP-2001;

98US-0093596P. 99US-00358624. 21-JUL-1998; 21-JUL-1999;

(SMIK ) SMITHKLINE BEECHAM CORP.

Gupta SK;

WPI; 2002-697879/75. P-PSDB; ABG32977.

Inducing chemotaxis of endothelial cells, useful for regulating angiogenesis, e.g. for treating cancer, comprises treatment with stromal cell-derived factor 1 alpha.

Disclosure; Fig 1; 26pp; English.

The invention describes a method of inducing chemotaxis of endothelial cells by treatment with stromal cell-derived factor lalpha (SDF1a). The method is used for stimulating EC chemotaxis, and thus angiogenesis, and is used for treating atherecises. Estenosis, ischaemic stroke and spinal cord injury. Inhibition of this process is useful in treatment and prevention of a very wide range of diseases, such as, infection (by acteria, fungi, protozoa or viruses such as human immunodeficiency virus (HIV) and acquired immunodeficiency syndrome (AIDS), pain, cancer and benign prostatic hypertrophy, diabetes, obesity, anorexia, bulimia, catchinary retention, dispersension, uninary retention, deteoporosis, anginal pectoris, myoertension, uninary retention, oteoporosis, anginal pectoris, myoertension, uninary retention, oteoporosis, anginal pectoris, myoertension, uninary retention, oteoporosis, anginal pectoris, catchinary retention, deteoporosis, inflammatory diseases, theumatoid arthritis, diabetic retinopathy, inflammatory disease, therosclerosis, restenosis, Alzheimer's disease, congestive certicipate, cardiac remodeling, angiogenic diseases, solid tumours, and Kaposi Sarcoma. This sequence encodes the human CXC chemokine 

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

Length 1679; Indels Query Match 55.1%; Score 933.4; DB 6; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216;

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angiogenesis-associated disease, cancer; cytostatic; gene therapy;
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conditions, and for regulating tumourigenesis, angiogenesis, apoptosis, biological response to hypoxia conditions, or hypoxic-associated pathology in a patient. The coding sequences and proteins are also useful for monitoring the therapeutic treatment of a disease or physiological condition, such as cancer, ischaemic conditions, reperfusion injury, retinopathy, neonatal stress, precelapmsia, atherosclerosis, inflammatory conditions, wound healing, inflammation, erythropoiesis or hair loss
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Detecting angiogenesis-associated transcript in a cell for diagnosing and treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue undergoing angiogenesis.

Example 2; Page 217-218; 291pp; English

The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polynucleotide sequences given in the specification. These angiogenesis-associated polynucleotide sequences comprise genes that exhibit changes in expression levels as a function of time in tissue undergoing angiogenesis in the method and the polynucleotide sequences of the invention are useful for diagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polynucleotide sequences are also useful in the gene therapy of such disorders. The sequences are also useful in the gene therapy of such disorders. The angiogenesis-associated proteins encoded by the polynucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation. sednences 

120 180 240 300 163 223 283 284 cagaagaaacttgagaagcargacgacaagaagaagagcrgcrgcrgcrgrgrgggcgaccrc 343 344 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 403 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 463 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 Arcchescentearearenegacescraecrasecaresceareaceaecaaceaecaas 480 524 AGGCCAAGGAAGCIGTTGGCTGAAAAGGTGGTCTAIGTTGGCGTCTGGATCCCTGCCTC 583 900 9 104 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG GAACCCTGTTTCCGTGAAGAAATGCTAATTCAATAAAATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCATGGATTGGTGATCCTGGTCATGGGTTAC 224 recarcarcrivatorioscarrorosecaarosarrosrearearearearearearea AACTICCIATGCAAGGCAGTCCATGTCATCTACAGGCAACCTCTACAGCAGCGCAGTCTCTC AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCCGATAGCCTGTGGATGGTGGTGTTTTCAA CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 41; Score 933.4; DB 7; Length 1679; Pred. No. 4.3e-207; 0; Mismatches 216; Indels 41; Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other; crecreacrarrecesacricarerrecease-Query Match
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Human; microarray; solid surface; immobilised probe; CC-RCC; differential expression profile; aggressive CC-RCC tumour type, non-aggressive CC-RCC tumour type; clear cell renal carcinoma; gene expression profiling; tumour tissue; gene; ss.

sapiens Ношо WO200279411-A2

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29-MAR-2002; 2002WO-US009576
           29-MAR-2001; 2001US-0279411P
               (VAND-) VAN
  10-0CT-2002
                    Haab B,
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New microarray, comprising a matrix of cDNA probe from a set of probes immobilized to a solid surface in predetermined order, useful in the prognosis of patients with clear cell renal carcinoma. Ξ Takashi BT, Teh WPI; 2003-040679/03 Rhodes D,

ANDEL INST

Claim 35; Page 132-133; 179pp; English.

The present invention relates to a microarray comprising a matrix of at least one cDNA probe from a set of probes immobilised to a solid surface in a predetermined order, where a row of pixels corresponds to replicates of one distinct probe from the set. The probes are complementary to muchalic acid sequences that are expressed differentially in aggressive as compared to non-aggressive types of clear cell renal carcinoma (CC-CC) microard that hybridise to the probes under high stringency conditions. The microarray is useful for the prognosis of patients with CC-RCC, wherein aggressive and non-aggressive CC-RCC tumour types are characterised by differential expression profiles of genes that hybridise with one or more probes immobilised on the microarray. The arrays are useful for gene expression profiling of tumour and normal tissues. The present sequence represents a human cDNA sequence up-regulated in CC-RCC patients

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

163 120 223 9 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGGACTATGACTCCATGAAG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC Gabs 41; Query Match 55.1%; Score 933.4; DB 7; Length 1679; Best Local Similarity 81.8%; Pred. No. 4.3e-207; Matches 1154; Conservative 0; Mismatches 216; Indels 41; 61 8 8 8 8

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TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC GAACCCTGTTTCCGTGAAGAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 224 164 121 181

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ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG

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AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTC

AGGCCAAGGAAGCTGTTGGCTGAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCTC 524 481

chemokine receptor CXCR4

Nucleotide sequence of human

540

(first entry)

28-MAY-2003

ABZ68886 ID ABZ6 XX ABZ6 XC ABZ6 XX DT 28-P XX XX

CDNA; 1679

standard;

ABZ68886 ABZ68886

RESULT 13

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360 463

1048 1020 1140 1200 1260 1320 1390 1442 808 780 840 900 988 960 660 720 868 928 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAGAAGCCCTCAAGACC 869 ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG rocacreacreacrerreacrirreacrecescras-----cacacareraaa GACTITITITITATACGATAAATAACTTTTTTTAAGTTACACATTTTTCAGATATAAAAG 1331 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG -TCAGTGAGGCA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA 689 Tricadcarcarderredecrratecreceregrariercarcererererariee ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC cicialgerincendeadceaarinaaaaciciceedcacacacaccicreis AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGAAAAGCGGGGTGGACACTCTTCCGTC Addadadarccadcerchadarccrerchadadadadadadadadadarrenerr TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1081 AATATATATATATATATGATAAAGAACTTTTTATATTACACATTTTCCAGATATAAGAG ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC -----Crrererra TCTAGTTTTTGTGAGGTTTGACTTAATTTATAAATATTGTTTTTTGTTTTGTTTCATGT GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTGTAG GACTGTAGAACTGTAGAAGGAAGAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCCTGTTACTGC ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGT CTGCTGACTATTCCCGACTTCATCTTTGCCAACG----GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473 1109 1141 721 809 1021 1161 1221 1201 1275 1391 1381 1443 541 629 601 661 749 781 841 929 901 989 196 1049 g 셤 셤 8 В ò 엄 ò g 임 g ద 셤 셤 정. 염 ठ ठ ð 8 8 ò à ઠે ઠ ò ઠે 셤 ò 셤

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                                                                                                                                                                                                                                                                                                                          The present sequence encodes human chemokine receptor CXCR4. The specification describes a method for modulating viral infection of a cell. the method comprises modulating a binding interaction between a cell chemokine-receptor and a surface protein of the virus. The provise is that the cell chemokine-receptor is not CX3CR1 and that the virus is not HIV. The method is useful for treating or preventing respiratory virus infection in vertebrates, more particularly respiratory syncytial virus (RSV) infections, and related diseases, e.g. bronchiolitis,
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                                                                                                                                                                                                                                                     Modulating viral infection of a cell, for treating or preventing respiratory virus infections, bronchitis, pneumonia or asthma, by modulating a binding interaction between a cell chemokine-receptor surface protein of the virus.
Human, chemokine receptor, CXCR4, viral infection, surface protein, respiratory virus infection, respiratory syncytial virus infection, RSV infection; bronchiolitis, bronchitis, pneumonia, asthma, gene,
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                                                       Location/Qualifiers
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Human CXC chemokine receptor 4 nucleotide SEQ ID NO:75,

G protein-coupled receptor, GPCR; antigenic peptide; gene therapy; G protein-coupled receptor modulator; antibody; immune-related disease; growth-related disease; cell regeneration-related disease; AIDS; cancer; immunological-related cell proliferative disease; autoimmune disease; Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy; descentives disease; diabetes; graft versus host disease; barkinson's disease; multiple sclerosis; pain; psoriasis; anxiety; depression; schizophrenia; dementia; memory loss; hypertension; hypertension; renal disorder; rheumatoid arthritis; trauma; ulcer; gene; ds.

(LIFE-) LIFESPAN BIOSCIENCES INC

New isolated antigenic peptides e.g., for G protein-coupled receptors (GPCR), useful for diagnosing and designing drugs for treating conditions in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or autoimmune diseases.

Disclosure, Fig 1; 523pp, English.

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acid be described: (1) an assay for the detection of a particular growth of the complex of and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (I) can be used as GPCR modulaters and in gene therapy. The antigenic peptides for GPCRs are useful in detecting an antibodies. The peptides and antibodies realso useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for corresponding GPCRs. The antigenic peptides for creesence or absence of corresponding GPCRs. The antigenic peptides for presence or absence of corresponding GPCRs. The antigenic peptides for creating immune-related diseases, immunological-related cell proliferative diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease, atherosclerosis, bacterial, fungal, protozoan or viral infections, atheroscreporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, parkinson's disease, multiple sclerosis, pain, psoriasis, onten disease, multiple sclerosis, pain, psoriasis, hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder, the moder of antibodies may be used in immunoassays and immunodiagnosis, obseity, nausea, hypotension, charles and immunodiagnosis. ABZ42523 to ABZ4269 encode GPCR proteins given in ABP81675 to ABBA2523 to ABZ4269 encode cemplification of the present invention ABZ42642

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ADC98645 standard; cDNA; 1679 BP 

(first entry) 01-JAN-2004 Human CXC chemokine receptor 4 (CXCR4)-encoding cDNA.

Human, CXC chemokine receptor 4; CXCR4; CXCR4 inhibitor; small cell lung cancer; SCLC; cellular adhesion; cellular proliferation; metastasis; motility; morphological change; drug screening; monitoring; cytostatic; gene; ss.

Homo sapiens

/\*tag= a /product= "Human CXCR4" cocation/Qualifiers

WO2003079020-A2

25-SEP-2003

20-MAR-2003; 2003WO-EP002916.

20-MAR-2002; 2002US-0366370P

(DAND ) DANA FARBER CANCER INST INC. (NOVS ) NOVARTIS AG.

Salgia R;

WPI; 2003-757037/71. P-PSDB; ADC98646.

Use of a CXC chemokine receptor 4 (CXCR4) inhibitor, for modulating cellular adhesion or inhibiting proliferation, movement, or morphological change in a small cell lung cancer (SCLC) cell population, or for treating a subject having SCLC

Disclosure, SEQ ID NO 1; 78pp; English

The invention relates to methods and compositions for inhibiting small cell lung cancer (SCLC) proliferation and metastasis through modulation of the activity or expression of CXC chambakine receptor 4 (CXCR4), and coptionally, that of the tyrosine kinase receptor c-Kit. Administration of CXCR4 innibitor modulates cellular adhesion and inhibits cellular copy proliferation, motility, and morphological changes in an SCLC cell.

CXCR4 inhibitor modulates cellular adhesion and inhibits cellular copy lation. The invention is based on the finding that CXCR4 is copylication. The invention also discloses methods of screening for CXCR4 inhibitors; complete and also discloses methods of screening for CXCR4 inhibitors; conterming whether a sample of lung cancer cells expresses CXCR4 and c-Kit is is therefore amenable to treatment with a combination of a CXCR4 inhibitor and a c-Kit inhibitor; and a method of assessing whether CXCR4 inhibitor and a c-Kit inhibitor; and a method of assessing whether CXCR4 inhibitor and a c-Kit inhibitor; and a method of assessing whether CXCR4 inhibitor and c-Kit inhibitor combination therapy should be continued, by determining CXCR4 (and optionally c-Kit) activity in two or more consumption and an optionally c-Kit) activity in two or more the methods of the invention are useful for treatment with agents of tree invention are useful for treatment with agents of the invention are useful for treatment with agents of the invention are useful for treatment with agents of the invention are useful for treatment with agents of the invention are useful for treatment with agents of the continued should be continued. The present sequence represents cDNA encoding human continued in methods of the invention of the invention. ¥8888888888888888888888888888888

Sequence 1679 BP; 407 A; 400 C; 368 G; 504 T; 0 U; 0 Other;

660 120 223 180 283 240 343 300 403 360 463 420 523 9 1 ATATACACTICIGATAACTACTCIGAAGAAGIGGGGTCTGGAGACTAIGACTCCCAACAAG 104 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCTCCATGAAG 121 ITCATCATCITCITGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 344 CICITIGECALCACGCITCCCCTICIGGGCAGITGAIGCCGIGGCAAACIGGIACTITGGG 301 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 404 AACTICCIAIGCAAGGCAGICCAIGICAICIACACAGTCAACCTCTACAGCAGIGTCTC 361 ATCCIGGCCITCALCAGCCIGGACCGGIACCICGCCATIGICCACGCCACCAACAGICAA 464 AICCIGGCCTICATCAGICIGGACCGCIACCIGGCCATCGICCACGCCACCAACAGICAG 524 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTGTTTGGCGTCTGGATCCCTGCCCTC 584 cigcitakoratrocogacircarciridecaace------readadaaa 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC 61 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 164 daacccrgritccgrdaadaaaadcraarircaaraaaarcriccrgcccaccarcrac 224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCGTCATGGTCATGGTCATGGTTAAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG **AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTTC** Gaps h Similarity 81.8%; Pred. No. 4.3e-207; 54; Conservative 0; Mismatches 216; Indels 41; Best Local Similarity 81.8 Matches 1154; Conservative 629 601 241 421 181 Query Match 8 6 요 d ò g 상 원 ò 원 g 8 8 ò Ďς. à 셤 8 g ò ò

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Search completed: May 17, 2004, 06:37:17 Job time : 736.44 secs Sequence 1, Appli Sequence 1, Appli Sequence 65, Appli Sequence 65, Appl Sequence 1052, Appl Sequence 1052, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli Sequence 23, Appli

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61 GAACCCIGCTICCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120
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US-08-982-43-7

US-08-982-43-7

US-09-170-496D-199

US-09-100-496D-199

US-09-088-337B-65

US-09-088-337B-65

US-09-08-337B-1

US-08-100-496D-173

US-08-100-173

US-09-170-496D-173

US-09-170-496D-173

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US-09-170-496D-173

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US-09-582-224A-5

S Sequence 5, Application US/09582224A

Patent No. 6429308

GENERAL INFORMATION:

APPLICANT: IJIMA, Osamu

APPLICANT: SHIMADA, Takashi

TITLE OF INVENTION: HIV Infection Inhibitors

FILE OF INVENTION: HIV Infection Inhibitors

FILE OF INVENTION: HIV INFECTION INDER: US/09/582,224A

CURRENT APPLICATION NUMBER: US/09/582,224A

CURRENT APPLICATION NUMBER: PCT/JP99/06534

PRIOR FILING DATE: 1999/11/24

NUMBER OF SEQ ID NOS: 5

SOOTHWARE: Microsoft Word

SEQ ID NO 5

LENGTH: 1664

TYPE: NAN
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; OTHER INFORMATION: cDNA of CXCR4
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ORGANISM: Artificial Sequence
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Maximum Match 100%
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Sequence 1213, Application US/09023655

Sequence 1213, Application US/09023655

Patent No. 6607879

GENERAL INFORMATION:

APPLICANT: Goods Benjamin G.

APPLICANT: Goods Benjamin G.

APPLICANT: Jeffrey J. Seilhamer

TILLE OF INVENTION: COMPOSITION FOR THE DETECTION OF BLOOD CELL GENE

TILLE OF INVENTION: EXPRESSION

NUMBER OF SEQUENCES: 1508

CORRESPONDENCE ADDRESS:

ADDRESSEE: INCTTE PHARMACEUTICALS, INC.

STREET: 3174 PORTER DRIVE

CITY: PALO ALTO

STRATE: CALIFORNIA

COUNTRY: USA
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COMPUTER READABLE FORM:

MEDIUM TRYPE Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/023,655
FILING DATE: HEREWITH
CLASSIFICATION NUMBER:
FILING DATE:
CLASSIFICATION
ATTORNEY/AGENT INFORMATION:
ATTORNEY/AGENT INFORMATION:
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CLASSIFICATION NUMBER: 37,071
REGISTRATION NUMBER: 37,071
REJERBANCE/DOCKET NUMBER: 37,071
REJERBANCE/DOCKET NUMBER: 37,071
REJERBANCE (650) 855-0555
INFORMATION FOR SEQ ID NO: 1213:
SEQUENCE CHARACTERISTICS:
LEMOTH: 1046 Dass pairs
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CLONE: 9219868
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Db 1431 GCTAGAATGATCCCCAGCTGTTTATGCATA 1461	RESULT 3 US-09-517-605-14 ; Sequence 14, Application US/09517605 ; Parent No. 6391567	GENERAL INFORMATION: , APPLICANT: Littman, Dan R. , APPLICANT: Kwon, Douglas S. , APPLICANT: van Koovk, Yvette	; APPLICANT: Geljtenbeck, Tneo; TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL; TITLE OF INVENTION: CELLS; FILE REFERENCE: 1049-1-017	CURRENT APPLICATION NUMBER: US/09/517,605 ; CURRENT FILING DATE: 2000-03-02 ; NUMBER OF SEQ ID NOS: 17 ; SORTWARE: PAFENTIN VEX: 2.0	; SEQ ID NO 14  ILENGTH: 1679  TYPE: DNE SADiens	-14 55.1%; Score 933.4; Esimilarity 81.8%; Pred. No. 1e-21	Matches 1154; Conservative 0; Mismatches 216; Indels 41  Qy 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAACTATGACT	Db 104 ATATACACTTCAGATAACTACACCGAGGAAAATGGGCTCAGGGGACTATGACTACTACTGCCGAAAACGTCCATTTCAATAGGATTTCCTGCCAA	Db 164 GAACCTGITITICGIGAAAAAGGGTAAITICAAIAAAATCTTCCTGCCCA Qy 121 TTCATCATCTTCTTGACTGGCAATAGTCGGCAATGGATTGGTGATCTGGTCA'	Db 224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCGTCACACACA	Db 284 CAGAGAAGAAGAGAGAGAGGAGGAGGAGGGGGGGGGGG	Db 344 CTCTTTGTCATCACGCTTCCCTTGGGCAGTGCGTGGCAAACTGGT  Oy 301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACACCTGTCAAACTCTTAAAGGCTGTCCATATCATCTAAAACTGTCAAAACTGTCAAAAAAAA	Db 404 AACTICCAAGGGAGTCCATGTCATCTACACACAGTCAACTCTACAACCTCTACAACCTCAAGCACACACA	DD 464 A	OY 421 AGGCCAAGGAAACTIGCTGGCTGAAAGGCAGTCTATGTGGGCCTCTGGATCCT 	Qy 481 CTCCTGACTATACCTGACTTGATCTTTGCCGACGTCAGCCAGGGGGACATCA [	QY 541	Db 629 GATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGG	<b>.</b>
301 AAAITITGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360	361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 	421 AGGCCAAGGAAACTGCTGGAGAAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCTC 480	481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCCAGGGGGACATCAGTCAG	541 GATGACAGGTACATCTGTGACGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA 600	601 TICCAGCAIAIAAIGGIGGGICTCAICCTGCCCGGCAICGICAICCTCTCCTGITACTGC 660	661 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGAGG 720 	721 ACAGICAICCICAICCIAGCITICITIGCCIGCIGGCGCCAIAITAIGIGGGGAICAGC 780 	181 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840		901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGGATGCACTCAACTCCATG 960	961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGGGGGG	1021 TCCACGAGACAGAATCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 1097 TCCACGAGATCTGAGTTTTCACTCCAGCTAACACAGATGTAAA 1148		ACTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC	1209 ACTGACCAATATTGTACAGTTTTATTACTTGTTGGTGTTTTTGTCTTGTGTTTC 1262 1201 TCTAGTTTTTGTGAGGTTTGACTTAATTTATAAATATTGTTTTTTTT			1321 GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA 1380	70.000 TO TO TO TO TO TO TO TO TO TO TO TO TO
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ness: singi : linear	ASCAGAGAGTCAGAATCCTCCAGATTTTCACTAAGGAAACCCTTATGCAAAGACAAAACTTATATAT TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATAT
; SEQUENCE CHARACTERISTICS: LENGTH: 1737 bases ; TYPE: nucleic acid	961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAGGGGGGTGGACACTCTTCCGTC 1020 .
910/	901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 
REGISTRATION NUMBER: 34,659 REFERENCE/DOCKET NUMBER: 706P3 FELECOMMUNICATION INFORMATION:	841 CACAAGTGGATCTCCATCACAGAGGCCTTGGCCTTCTTCCACTGTTGCCTGAACCCCGTC 900
APPLICATION NUMBER: 07/677211 FILING DATE: 29-MAR-1991 ATTORNEY/AGENT INFORMATION:	781 AICGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840 
CONCELL AFFILICATION DAIR;  APPLICATION NUMBER: US/08/202,056  FILING DATE: 25-FEB-1994  CLASSIFICATION: A36  DATO ADDITION NUMBER: WAS	721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCCTGCCATATTATGTGGGGAATCAGC 780 
M PC compatible STEM: PC-DOS/MS-DOS itin (Genentech)	661 ATCATCATCTCAAGCTGTCACACTCCCAAGGCCCCCCAGAAGGCCCTCAAGACG 720 
COMPUTER READABLE FORM:	

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                           41; Gaps
, Score 933.4; DB 1; Length 1737;
, Pred. No. 1e-210;
0; Mismatches 216; Indels 41;
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US-08-202-056-4

i Sequence 4, Application US/08202056

j Patent No. 5440021

i GENERAL INFORMATION:

APPLICANT: Chuntharapai, Anan
APPLICANT: Kim, Kyung Jin

APPLICANT: Lee, James

TITLE OF INVENTION: Antibodies to Human IL-8 Type B Receptor

CORRESPONDENCE ADDRESS:

ADDRESSEB: Generacch, Inc.

STREET: 460 Point San Bruno Blvd

COUNTRY: USA

COUNTRY: USA
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FILING DATE:

CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/810782
FILING DATE: 19-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/67221
FILING DATE: 29-MAR-1991
ATTOKNEY/AGENT INFORMATION:
NAME: LOVE, Richard B
REGISTRATION NUMBER: 34,659
REPRENCE/POCKET NUMBER: 706F2
TELECOMMUNICATION INFORMATION:
TELEBRIORE: 415/522-9881
TELEBRATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 nucleotides
TYPE: NUCLeich Acid
TYPE: NUCLeich Acid
TYPE: NUCLeich Acid
TYPE: NUCLeich Acid
TYPE: NUCLeich Acid
TYPE: NUCLeich Acid
TYPENDENCE: Single
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Best Local Similarity 81.8%;
Matches 1154; Conservative
                            COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inc
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                     ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC
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Patent No. 5543503
GENERAL INFORMATION:
CHURCHART: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hibert, Caroline
APPLICANT: Min Kim, K.
TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Genentech, Inc.
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STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
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-08-076-093A-3
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Pred. No. 1e-210;
0; Mismatches 216; Indels
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: MINPatin (Genentech)
CURENT APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-Jun-1993
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US-08-701-265-3
; Sequence 3, Application US/08701265
; Patent No. 5776457
; GENERAL INFORMATION:
    APPLICANT: Chuncharapai, Anan
    APPLICANT: Hebert, Caroline
    APPLICANT: Jin Kim, K.
    TITLE OF INVENTION: Antibodies to Human PF4A Receptors
    NUMBER OF SEQUENCES: 6
    CORRESPONDENCE ADDRESS:
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ADDRESSEE: Genentech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: South San Francisco
STATE: California
COUNTRY: USA
ZIP: 94080
COMPUTER READBLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy
COMPUTER: BRADBLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy
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MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy
COMPUTER: BRADBLE FORM: BC-DOS/NS-DOS
CURRENT APPLICATION NUMBER: US/08/701,265
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/810782
FILING DATE: 11-Jun-1993
APPLICATION NUMBER: 07/877211
FILING DATE: 19-DEC-1991
FILING DATE: 19-DEC-1991
ATTORNEY AGENT INFORMATION:
NAME: LOVE, RICHARD B
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 706P2
TELECOMMUNICATION INFORMATION:
TELEFAX: 910/371-7168
INNFORMATION FOR SEQ ID NO: 3:
SEQUENCE GHARACTERISTICS:
LENGTH: 1737 nucleotides
TYPE: Nucleic Acid
STRANDENBES: Single
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Sequence 3, Application US/08284586; Patent No. 5840855; GENERAL INFORMATION: APPLICANT: Chuntharapai, Anan

US-08-284-586-3

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APPLICANT: Lee, James
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Hebert, Caroline
APPLICANT: Jin Kim, K.

TITLE OF INVENTION: Antibodies to Human PF4A Receptors
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Generatech, Inc.
STREET: 460 Point San Brancisco
STREET: 460 Point San Brancisco
STREET: California
CONDUTER: California
CONDUTER: Lab PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MinPath (Generatech)
COMPUTER: Insw PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MinPath (Generatech)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/076,093A
FILING DATE: 11-UM-1993
APPLICATION NUMBER: 07/81071
FILING DATE: 19-DEC-1991
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 07/67211
FILING DATE: 19-DEC-1991
APPLICATION NUMBER: 07/67211
FILING DATE: 19-DEC-1991
ATTORNEY/AGENT INFORMATION:
TELEPHONE: 415/225-5530
TELECOMMUTCATION INFORMATION:
TELEPHONE: 415/225-5530
TELECOMMUTCATION INPORMATION:
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Pred. No. 1e-210;
0; Mismatches 216;
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Best Local Similarity 81.8%;
Matches 1154; Conservative (
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STRANDEDNESS: Single
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US-08-284-586-3
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             ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG
                                                                  ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACAGAAGCGCCAAAGGCCCTCAAGACC
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ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                  AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                   GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTCAA
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COMPUTER REABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATION SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPetin (Genentech)
APPLICATION NUMBER: US/08/805,478
FILING DATE: 25-Feb-1997
FILING DATE: 25-Feb-1997
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/284586
FILING DATE: 10-AUG-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 09/076093
FILING DATE: 11-UNN-1993
PRIOR APPLICATION DATA: 34,659
FILING DATE: 19-DEC-1991
ATTORNEY AGENT INFORMATION:
NAME: LO-W. Richard B.
REGISTRATION NUMBER: 34,659
REPERBENCE/DOCKET NUMBER: P0706P2PIC1
TELEDPHONE: 415/225-5530
TELESPHONE: 415/525-5831 Query Match 55.1%; Score 933.4; DB 2; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; RECEPTOR Sequence 3. Application US/08805478
Patent No. 5874543
GENERAL INFORMATION:
APPLICANT: Chuntharapai, Anan
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Lee, James
APPLICANT: Jin Kim, K.
TITLE OF INVENTION: ANTIBODIES TO PP4A REC
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSBE: Genertech, Inc.
STREET: 460 Point San Bruno Blvd
CITY: SOUTH San Francisco
STATE: California TELEX: 910/371-7168 INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS: LENGTH: 1737 base pairs TYPE: Nucleic Acid STRANDEDNESS: Single TOPOLOGY: Linear 241 ò

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1393 GACTGTAGAA-
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226 TCCATCATCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 285
----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444
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Sequence 3, Application US/08802627A

Patent No. 5892017

GENERAL INFORMATION:

APPLICANT: Wood, William I.

TITLE OF INVENTION: UNCLEIC ACID ENCODING PF4A RECEPTOR

NUMBER OF SEQUENCES:

CORRESSED: Generated, Inc.

STRIE: Generated, Inc.

STRIE: Generated, Inc.

CONTRY: Gould San Francisco

CONTRY: California

CONTRY: USA

CONTRY: SADALE FORM:

MEDIUM TYPER READALE FORM:

MEDIUM TYPER S. 3.5 inch, 1.44 Mb floppy disk

CONTRY: The SADALE FORM:

MEDIUM TYPER S. 3.5 inch, 1.44 Mb floppy disk

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PRIOR APPLICATION DATA:

APPLICATION NUMBER: 09/24586

FELENCH: ALTORION NUMBER: 09/24586

FELENCH: ALTORION NUMBER: 09/24589

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                                                                                    1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
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1333 TGATGTGTGTCTTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTTGTTATGTCTCGTGGTAG 1392
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                      286 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACTGTCACTGGGCGGACCTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                106 ATATACACTTCAGATAACTACACCGAGGAATGGGCTCAGGGGGACTATGACTCCATGAAG
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Best Local Similarity 81.8%; Pred. No. 1e-210;
Matches 1154; Conservative 0; Mismatches 216; Indels
    US-US-US-LAID.

US-US-SUL-ZAB-J

SEQUENCE 3, Application US/08801238

PATENT INCOMPATION:

TITLE OF INVENTION:

NUMBER OF SECUENCES:

CORRESPONDENCE ADDRESS:

ADDRESSEE: Genetatech, Inc.

STREET: 460 Point San Bruno Blvd

CITY: South San Francisco

STATE: California

COMPUTER READABLE FORM:

MEDIUM TYPE: 18M FC compatible

COMPUTER: ISM FC compatible

COMPUTER: 18M FC compatible

COMPUTER: 18M FC compatible

COMPUTER: 18M FC compatible

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US-08-801-238-3
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2.

1201 TCTAGTTTTTGTGACTTAATTTATAAATATTTTTTTTTT	RESULT 11 US-08-801-228-3 ; Sequence 3, Application US/08801228 ; Patent No. 5922541 ; GENERAL INFORMATION: ; APPLICANT: Lee, James ; APPLICANT: Lee, William I. ; TITLE OF INVENTION: METHODS FOR DETECTION AND AMPLIFICATION OF ; TITLE OF INVENTION: PP4A RECEPTOR NUCLEIC ACID ; MIMBER OF SECIENCES: 6	CORRESPONDENCE ADDRESS:  ADDRESSE: Genentech, Inc. STREET: 460 Point San Bruno Blvd CITY: South San Francisco STATE: California COUNTRY: USA ZIP: 94080 COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk COMPUTER: IBM PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPUTER: PC COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIBLE COMPATIB	SOFTWARE: WinPatin (Genentech)  CURRENT APPLICATION DATA:  FILING DATE: 19-Feb-1997  CLASSIFICATION NUMBER: US/08/801,228  FILING DATE: 19-Feb-1997  PRIOR APPLICATION DATA:  FILING DATE: 10-AUG-1994  PRIOR APPLICATION DATA:  FILING DATE: 10-AUG-1994  PRIOR APPLICATION DATA:  FILING DATE: 11-AUG-1993  FILING DATE: 11-UN-1993	HAION APPLICATION DATA:  APPLICATION NUMBER: 19-DEC-1991  ATTORNEY/AGENT INFORMATION:  NAME: LOVA ET 34,659  REGISTRATION NUMBER: 34,659  REFERENCE/DOCKET NUMBER: P0706P2P1D3  TELEPHONE: 415/225-5530  TELEPHONE: 415/225-5530  TELEPAX: 415/952-9881  TELEPAX: GOO IN NO. 2.	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Db 1163 GACTITITITATACGATAAATAACTITITITAGGTTACACATIT	1141 A 1223 A	1201	1261 1333	<b>შ—</b> შ	Oy 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411	RESULT 12 US-09-104-296-3 ; Sequence 3, Application US/09104296		; TITLE OF INVENTION: PF4A Receptors ; NUMBER OF SEQUENCES: 6 ; CORRESPONDENCE ADDRESS: 7 ; ADDRESSEE: Genentech, Inc.	E . E .	COMPUTER READABLE FORM:  MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk  COMPUTER: IRM PC compatible	) OPERATING SYSTEM: PC-DOS/MS-DOS ; SOFTWARE: WinDatin (Genentech) ; CURRENT APPLICATION DATA: ; APPLICATION NUMBER: US/09/104,296	FILING DATE: 24-June-1998  CLASSIFICATION DATA:  PRIOR APPLICATION DATA:  APPLICATION NUMBER: 06/701265	; FILING DATE: 2.40(5-1296); PRIOR APPLICATION DATA: ); APPLICATION NUMBER: 08/664228; FILING DATE: 06-UIN-1996	HIDE APPLICATION DATA:  APPLICATION NUMBER: 08/076093  FILING DATE: 11-UTN-1993  PRIOR APPLICATION DATA:	APPLICATION NUMBER: 07/810782 ; FILING DATE: 19-DEC-1991 ; ATTORNEY/ABENT INFORMATION: ; NAME: Love, Richard B.	REFERENCE TOWNERS: 34,659 ; REFERENCE TOWNERS: P0706P2C2 ; TELECOMMUNICATION INPORMATION: TELEPHONE: 415,725-5530	I FELEX: 910/371-7168 ; INFORMATION FOR SEQ ID NO: 3: ; SEQUENCE CHARACTERISTICS:	; LENGTH: 1/3/ Dase pairs ; TYPE: Nucleic Acid ; STRANDEDNESS: Single	
106 ATATACACTICACATAACTACACCGAAGAAATGGGCTCAGGGGACTATGACTCCATGAAG 165	GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTC 12	121 TICATCATCTITGACTGGCAIAGICGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 	181 CAGAAGATGAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGATGTC 240 	241 CTCTTTGTCAFCACTCCCCTTCTGGGCAGTTGATGCCAFGCTGACTGGTACTTTGGG 300	301 AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACTCTTACAGCAGCGTTCTC 360 	361 ATCCTGGCCTTCATCAGCTGGACCGGTACCTCGCCATTGTCCAGGCCACCAACAGTCAA 420	421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 480	481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGGGGGGG	541 GATGACAGGTACARTCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA 600 	601 TICCAGGATATAANGGTGGGTCTCATCCTGCCCGCATCGTCATCCTCTCTGTTACTGC 660	661 ATCATCATCATCTGTAAGCTGTCACACTCCAAGGGCCACCAAGGCCCAAGGCCCTCAAGACG 720	721 ACAGICAICCICAICCITACTITGCCIGCIGGCCGCCAIAITAIGIGGGGAICAGC 780	781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840	841 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 900	901 CTCTATGCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 	961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGGGGGGGG	1021 TCCACGGAGTCACAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 	1081 AATATATATATATATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1140	
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STTTATCTGTGTGGTAG 1320 GGGAGTTTATGTTCC 1200 TTGTTTGTTTCATGT 1260 TTTCAGATATAAAAG 1222

; US-09-104-296-3	OLOGY: Linear 296-3	Db 10	1051 AGCAGAG
Query Mat Best Loca Matches	y Match 55.1%; Score 933.4; DB 3; Length 1737; Local Similarity 81.8%; Pred. No. 1e-210; hes 1154; Conservative 0; Mismatches 216; Indels 41; Gaps 5;	00 Ov	 1111 TCCACTG 1081 AATATAT
ر م	1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG 60 		
		γ A	1141 ACTGACC          1223 ACTGACC
eg Q			
ं व	121 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 	. c	
	181 CAGAAGAAGCAAAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 240		
g &	ი ტ—	7 7 6	1321 GACTGTP        1393 GACTGTP
Db		φ,	1381 GCTAGCC
දුරු දුරු	301 AAATTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 	dg 1	 1445 GCTAGAA
8 8		RESULT 13 PCT-US94-0 ; Sequence	RESULT 13 PCT-US94-06380-2 ; Sequence 2, Applica
} &	AGGCCAAGGAAACTGCTGAAAAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTC 48	GENERAL ; APPLI ; APPLI	NERAL INFORMATION APPLICANT: Chur APPLICANT: Lee
ପ୍ର		APPLI	CANT: Hebe
B &	481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGGGGACGACGAGGGGACGAGGGGACG 540	TITLE ', NUMBE	TITLE OF INVENT
ò		ADI	ANDRESSEE: G
qq		CIT	2.6
ov Dp	601 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTCT	COUNT , ZIP: , COMPUTE	COUNTRY: USA ZIP: 94080 COMPUTER READAB
ò	661 ATCATCATCTTAAGCTGTCACACTCCAAGGGCCACAAAAGCGCAAGGCCCTCAAGACG 720		MEDIUM 11FE: COMPUTER: IB OPERATING SYSI
8 &		CURRI	CURRENT APPLICA APPLICATION N FILING DATE:
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yo g	781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGATGTGACTTCGAGGAGTGTGG 840 6.1	AP:	APPLICATION N FILING DATE: ATTORNEY/AGENT
g &		NA , RE	NAME: LOVE, REGISTRATION REFERENCE/DOC
QQ		TELE	TELECOMMUNICATI
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۸ŏ	961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGGGGG	EDAS .	NGTH: 1737 PE: nuclei
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1163 1321 1051 1021 1201 1381 g a 8 셤 음  $\stackrel{>}{\circ}$ g ò ò 8 셤 ઠે ద  $\stackrel{>}{\circ}$ AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC 1020 ŝ 240 480 99 540 750 ATTATCATCTCCAAGCTGTCACACTCCAAGGCCCACCAGAAGCGCCAAGGCCCTCAAGACC 810 780 ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAAACACTGTG 930 165 120 225 180 285 286 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 345 300 405 360 465 420 525 585 600 069 661 ATCATCATCTCAAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAAGGCCTCAAAGACG 720 811 ACAGTCATCCTCATCCTGGCTTTCTTCGCCTGTTGGCTGCCTTACTTGGATTGGGATCAGC 870 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGGAAGGATGTGACTTCGAGAGCATTGTG 840 CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCCATC 900 cacaagregarrrccarcacceaeeccraecrrrcrrccacrerrergaacccarc 990 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 crecreacrarreceaerrearcrireceaeca-----reagreaegea 630 166 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAATCTTCCTGCCCACCATCTAC CICITIGICATCACACTCCCCTTCTGGGCAGTTCATGCCATGGCTGGTACTTTGGG ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAG AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC AGGCCAAGGAAGCTGTTGGATGAAAAGGTGGTCTATGTTGGCGTCTGGATCCTGCCCTC Trecadeatranalgeregerererectedecegecaregrearecterranacies 106 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 346 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCAGCGTTCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGGATAGCCTGTGGTGGTGGTGTTTCAA ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 406 AACTICCTAIGCAAGGCAGICCAIGICAICTACACAGCAACCICIACAGCAGIGICCIC Gaps 41; Length 1737; Ouery Match 55.1%; Score 933.4; DB 5; Best Local Similarity 81.8%; Pred. No. 1e-210; Matches 1154; Conservative 0; Mismatches 216; ; STRANDEDNESS: single; TOPOLOGY: linear PCT-US94-06380-2 226 181 241 301 361 466 421 526 481 586 541 531 601 691 751 721 871 841 331 901 991 61 8 8 8 8 8 8 ద 8 원 ò g 8 g ò ద ò a ò 엄 ठे 음 8 g ò g ò g ò a

1320 1200 1260 1332 1140 1276 1392 1110 1393 GACTGTAGAA-----AAGGGAACTGAACATTCCAGAGCGTGTAGTGAATCACGTAAA 1444 AGCAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1277 TTTAGTTTTTGTGAAGTTTAATTGACTTATTTATA----TAAATTTTTTTTGTTTCATAT 1261 GAATGAGGGTCTAGGCAGGACCTGTGGCCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1111 richactigagictigagictricagitititacticcagciaa------cácagatgiaaa 1081 AATATATATATATATATGATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG GACTGTAGAACTGTAGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA RESULT 14
US-09-016-434-1235
i Sequence 1235, Application US/09016434
j Patent No. 6500938
i GENERAL INFORMATION:
APPLICANT: Janice Au-Young
APPLICANT: Janice Au-Young
APPLICANT: Jeffery J. Sellhamer
TITLE OF INVENTION: COMPOSITION FOR THE DETECTION OF SIGNALING
ITILE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 18
TITLE OF INVENTION: PATHWAY GENE EXPRESSION
NUMBER OF SEQUENCES: 18
CITY: PALO ALTO
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STREET: 3174 PORTER DRIVE
CITY: PALO ALTO
STREET: 18M PC compatible
COMPUTER READABLE FORM:
MEDIUM TYPE: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WART PERFERITH
FILMO DATE: HERBWITH
CLASSIFICATION NUMBER:
CLASSIFICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER:
CLASSIFICATION NUMBER:
CLASSIFICATION DATA:
APPLICATION NUMBER:
CLASSIFICATION NUMBER:
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CLASSIFICATIO 1445 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1475 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 CLASSIFICATION:
ATTORNEY/AGENT INFORMATION:
NAME: Zeller, Karen J.
REGISTRATION NUMBER: J7,071
REFERENCE/DOCKET NUMBER: PA-0002 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 845-416
INFORMATION FOR SEQ ID NO: 1235:
SEQUENCE CHARACTERISTICS:
LENGTH: 1225 base pairs
TYPE: nucleic acid ΩS

3 CACAAGIGGAICTCCAICACAGAGGCCCTCGCCTTTCCACTGTTGCCTGAACCCCAIC 900 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 160 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 400 361 ATCCTGGCCTTCATCAGCCTGGACGGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA 420 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA 600 686 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC 745 cacaagregarrrccarcaccagecccraecrrrcrrccacrerrercaaccearc TCCATCATCTTCTTAACTGGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGTTAC 220 240 281 CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG 340 AAATTTTTGTGTAAGGCTGTCCATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 61 GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 CICITIGICALCACACICCCCTICIGGCCAGITGAIGCCAIGGCIGACIGGIACTITGGG 300 ses cardacadarararcrerdaccecrrcraceceardacrrerdesregerarrerde 661 ATCATCTCTAACCTGTCACACTCCCAAGGGCCACCAGAAGGCCCTCAAGACG ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG Trechechinanagiesererentereceseconcenerererererere 626 TITCAGCACATCATGGTTGGCCTTATCCTGCTTGGTATTGTCATCCTGTCTGCTATTGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCTC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 1 ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG Gaps 22; Query Match 50.5%; Score 855.6; DB 4; Length 1225; Best Local Similarity 83.3%; Pred. No. 2e-192; Matches 1005; Conservative 0; Mismatches 179; Indels 22; ; STRANDEDNESS: single ; TOPOLOGY: linear ; IMMEDIATE SOURCE: ; LIBRARY: GENBANK ; CLONE: 9189313 US-09-016-434-1235 781 806 841 601 998 901 161 181 241 301 341 401 481 엄 8 8 8 6 6 g 8 8 엄 ò g 8 g 상 심 ò a 8 В δ 셤  $\delta$ ò ઠે 셤 8 8  $\delta$ 

1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTTAATTGACTGTTGGAGTTTATGTTC 1200 986 Accadadederceaecerchadarecreretahadeahadedaddradarrearerierr 1045 NESULT 15
US-08-153-848-45
Sequence 45, Application US/08153848
Sequence 45, Application US/08153848
Seturation No. 575804
Seturation No. 575804
Seturation US/08153848
Seturation No. 5758048
Seturation No. 57580461
Seven Transmembrane Receptors
TITLE OF INVENTION: No. 57580461 Seven Transmembrane Receptors
NUMBER OF SEQUENCES: 64
CORRESPONDENCE ADDRESS:
Marchall, O'Toole, Gerstein, Murray & ADDRESSEE: Bicknell
STREET: 6300 Sears Tower, 233 South Wacker Drive 1046 FICACTGAGTCTGAGTCTTCAGTTTTCACTCCAGCTAACACAGATGTAAA-----AG 1081 AATATATATATATATATATAAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG 1099 ACTITITITITATAGATAAATAACTITITITITAAGTTACACATTITICAGATATAAAG 961 AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC ADDRESSEARCH STATE: 630.

STATE: 111inois

CTIY: Chicago
STATE: 111inois
COMPUTER: 630.

ZIP: 6666
COMPUTER: READALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER READALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER READALE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IMW PC compatible
OPERATING SYSTEM: PC-DOG/MS-DOS
SOFTWARE: PARCHIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US 07/977,452
FILING DATE: 17-NOV-1992
ATTORNEY/ AGRAY INFORMATION:
APPLICATION NUMBER: 31794
CAGC 780
FILING DATE: 17-NOV-1992
ATTORNEY/ AGRAY INFORMATION:
APPLICATION NUMBER: 31794
TELEPRAM: (312) 474-6448
FILING DATE: 1317 base pairs
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FILING DATE: 1317 bas ) NAME/KEY: CDS ; LOCATION: 201..1211 US-08-153-848-45 1201 TCTAGT 1206 TTTTGT 1224 1219 셤 δ q 8 8 à g à g à

CTCIAIGCITITCCTIGGAGCCAAATTIAAAACCICTGCCCAGCACGCACTCACCTCTGIG

Query Match Best Local Similarity 84.1%; Pred. No. 2.5e-187;	<u>면</u>	
Matches 974; Conservative 0; Mismatches 160; Indels 24; Gaps 2;		
	à	1081 AATATATATATATATGATAAGAACTTTTTTATGTTACACATTTTCC
QY 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTCCAACAAG 60	•	
	q	1227 AGACTITITITATACGATAAATAACCTITITITAAGTTACACATTITIC
Db 171 ATATACACTTCAGATAACTACACGGAGGAAATGGGCCTCAGGGGGACTATGACTCCATGAAG 230		

24; Gaps 2;	застссаасаад 60          застссатдаад 230	CCACCATCTAC 120		CTGTCAGTGGCTGACCTC 240	GGTACTTTGGG 300	GCAGCGTTCTC 360                 GCAGTGTCCTC 530	CCAACAGTCAA 420              CCAACAGTCAG 590			######################################	CCTGTTACTGC 660	CCCTCAAGACG 720              CCTCAAGACC 875		AAGAGCATTGTG 840                   AGAACACTGTG 995	TGAACCCATC 900              TGAACCCATC 1055	CTCAACTCCATG 960            	ACTCTTCGTC 1020               	AAGACTTATAT 1080
ar Similaricy 64.1%; Fred. NO. 2.36-18/; 974; Conservative 0; Mismatches 160; Indels	1 ATATACACTICIGATAACIACIGAAGAAGIGGGGTCTGGAGACTAIGACTCCAACAA 	61 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGATCTTCCTGCCCACCAT 	21 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCTGGTG	81 CAGAAGAAGCTAAAGAACCATGACGGACAAGTACCGGCTGCACCTGTCAG 	41 CICITIGICALCACCACCCCCTTCIGGGCAGITGANGCCANGGCTGACTGGTACTTTGGG 	01	61 AICCIGGCCITCAICAGCTGGACCGGIACCICGCCAITGICCACGCCACG	21 AGGCCAAGGAAACTGGTGGTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGC 	481 CICCIGACTATACCIGACITCATCITTGCCGACGICAGCCAGGGGACAT 	41 GAT     96 GAT	01 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTC	61 AICATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGGGGCAAGGCCTCAAGACG 	21 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATAT	81 AICGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGGACATTGTG 	41 CACAAGTGGATCTCCATCACAGAGGCCCTGGCCTTCTTCCACTGTTGCCTGAACCC 	01 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCA 	61 AG 	21 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT
hes	Н	(7)	1 0	ਜੋ ਲੋ	Q 4	w 4	ю v	44 N	4 V	o o	9 1	ψ	7 88	L 01	eó on	9 0	6 11	10

<u> </u>		  TGTAAA	1226 GAG 1140
DP &	1227 AGACTITITITATACGATAAATAACCTITITITAGTIACACATITICAGATATAAAAG 1286	TTTCAGATATAAAAG	128(
δ	1141 ACTGACCAGTCTTGTACA 1158	•	
QQ	1287 ACTGACCATATTGAAAA 1304		

Search completed: May 17, 2004, 16:15:55 Job time : 145.63 secs

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GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
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May 17, 2004, 12:11:00 ; Search time 829.19 Seconds	<pre>(without alignments) 9271.041 Million cell updates/sec</pre>
on:	

OM nucleic - nucleic search, using sw model

itle: US-09-367-052-7 erfect score: 1694		
ot score: 16	3-09-367-052-7	194
	ä	of score: 1,

<sup>1</sup> atatacacttctgataacta.......taaaagtcaatgataaactt 1694 IDENTITY\_NUC Gapop 10.0 , Gapext 1.0 Scoring table: Sequence:

2947324 seqs, 2269024515 residues Searched: Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

Published Applications NA:\*

| cgn2\_6/prodata/1/pubpna/USO7\_PUBCOMB.seq:\*
| cgn2\_6/prodata/1/pubpna/OFT\_MEW\_PUB\_seq:\*
| cgn2\_6/prodata/1/pubpna/USO6\_NEW\_PUB\_seq:\*
| cgn2\_6/prodata/1/pubpna/USO6\_PUBGOMB.seq:\*
| cgn2\_6/prodata/1/pubpna/USO6\_PUBGOMB.seq:\*
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| cgn2\_6/prodata/1/pubpna/USO8\_PUBCOMB.seq:\*
| cgn2\_6/prodata/1/pubpna/USO8\_PUBCOMB.seq:\*
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| cgn2\_6/prodata/1/pubpna/USO9\_NEW\_PUB\_seq:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SIMMARIES

	Description	Sequence 1, Appli	Sequence 1213, Ap	Seguence 80, Appl	Sequence 9, Appli	Sequence 912, App	14,	Sequence 912, App	332,	Sequence 75, Appl	8	Sequence 177, App	Sequence 20, Appl	Sequence 459, App	Sequence 3, Appli
COLUMNITION	QI.	US-10-160-401-1	US-10-641-643-1213	US-10-211-462-80	US-10-181-906-9	US-10-342-887-912	US-10-151-274-14	US-10-172-118-912	US-10-170-385-332	US-10-225-567A-75	US-10-021-660-58	US-10-341-434-177	US-09-971-392-20	US-10-101-510-459	US-09-104-063-3
	0.0	16	17	13	13	13	13	13	13	15	15	16	10	15	o,
	% Query Match Length DB	5161	1664	1679	1679	1679	1679	1679	1679	1679	1679	1679	1711	1711	1737
	% Query Match	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1	55.1
	Score	933.8	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4	933.4
	Result No.	! H ! I	7	m	4	Ŋ	9	7	80	6	10	11	12	13	14

6	77	0	H	-	7	1	φ	60	H	(A)	4	ednence 1	4		Ļ	~	equence 6	÷	Ä	2611,	2611	5	Seguence 2611	8936,	8936	8936	8936	162,	e 65,	Sequence 5, Appl1
10-666-689-3	9-880-107-214	US-09-960-106			US-10-101-510		US-10-101-510-	US-09-813-651B		US-10-160-401-2	US-09-870-759-143	US-09-751-708A-143	US-09-826-509-484	-953-692	17-	US-10-017	US-10-292-798-687	US-10-085-783A-1495	US-10-242-535A-1	US-09-796-692-2611	US-10-040-862-2611	US-10-057-475B-26	US-10-154-884B-2611	US-09-796-692-8936	US-10-040-862-89	US-10-057-475B-893	US-10-154-884B-8	US-09-997-722-16	US-10-251-385-6	US-09-104-063-5
13	σ	9	16	16	15	16	15	13	15	16	თ	10	1	σ	σ	15	16	13	97		15	φ	φ	σ	15	16	16	12	15	σ
1737	1670	1670	1670	1670	1225	1225	1224	1059	1059	1059	1102	1102	1059	1902	1902	1076	1076	507	507	421	421	421	421	487	487	487	487	1		1679
55.1	55.0	55.0	55.0	55.0	50.5	50.5	49.8	47.6	47.6	47.6	47.5	47.5	47.3	32.7	32.7	31.3	31.3	20.4	20.4	17.9	17.9	17.9	17.9	16.9	Ġ	ú	Ġ	ä	н	11.7
933.4	931.4	931.4	931.4	931.4	855	855.6	843.6	806.2	806.2	806.2	804.6	804.6	801.4	553.6	553.6	530	530	345.2	345.2	303.2	303.2	303.2	303.2	287	287	287	287	198.4	198.4	198.4
15	16	17	18	61	000	212	22	23	24	25	26	27	28	29	30	31	32	1 60	34	35	36	37	98			c 41			44	45

## ALIGNMENTS

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TYPE: DNA
ORGANIZM: Homo sapiens
PEATURE:
NAME/KEY: allele
LOCATION: (3118)
OTHER INFORMATION: PS1: polymorphic base thymine or adenine
FEATURE:
NAME/KEY: allele
LOCATION: (3583)...(3583)...
OTHER INFORMATION: PS2: polymorphic base cytosine or thymine
FEATURE:
NAME/KEY: allele
LOCATION: (3952)...(3952)...
OTHER INFORMATION: PS3: polymorphic base cytosine or thymine
COCATION: (3952)...(3952)...
Sequence 1, Application US/10160401
; Sequence 1, Application US/10160401
; Publication No. US20030207231A1
; General Information No. US20030207231A1
; General Information No. US20030207231A1
; APPLICANT: Genaissance Pharmaceuticals, Inc.
; APPLICANT: Bieglecki, Karyn M.
; APPLICANT: Bieglecki, Karyn M.
; APPLICANT: Rounds, Eleen
; APPLICANT: Rounds, Eleen
; APPLICANT: Rounds, Eleen
; TITLE OF INVENTION: HAPLOTYPES OF THE CXCR4 GENE
; FILE REFERENCE: NMH-0121US
; CURRENT APPLICATION NUMBER: US/10/160,401
; CURRENT FILING DATE: 2002-05-03
; PRIOR APPLICATION NUMBER: US 60/197,025
; PRIOR FILING DATE: 2000-04-13
; NUMBER OF SEQ ID NOS: 31
; SEQ ID NO 1
; LEMSTH: S161
; TANDER OF SEG ID NOS: 31
; TANDER OF SEG ID NOS: 31
; SEQ ID NO 1
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g g 원 g à g à g  $\delta$ Š ò 유 à g ò g à 3889 4009 4069 3544 3709 3769 3829 3949 5 3185 araracacricagaraacraccgaggaaargggcrcaggggacrafgacrccargaag 3244 3245 GAACCCIGTTTCCGTGAAGAAAATGCTAATTTCAATAAATCTTCCTGCCCACCATCTAC 3304 3305 ICCATCATCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 3364 3365 cagaagaaacrgagaagcargacgacaagracaggcrgccaccrgrcaggcggcgaccrc 3425 CICITIGECAICACGCITCCCTTCTGGGCAGTTGAIGCCGTGGCAAACTGGTACTTTGGG 3484 8605 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC 3664 840 180 240 9 780 AAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCAGCGTTCTC 360 480 540 900 CICITIGICALCACACICCCCITICIGGCAGIIGAIGCCAIGGCIGACIGIACITIGGG 300 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCACAGTCAA 420 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 3485 AACTICCIAIGCAAGGCAGTCCAIGICATCTACACAGTCAACCTCTACAGCAGTGTGTCTC 3665 CTGCTGACTATTCCCGACTTCATCTTTGCCAACG------TCAGTGAGGCA 1830 ATTATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACC 121 TICAICAICTICTIGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC CICCIGACIATACCIGACTICAICITIGCCGACGICAGCCAGGGGGACAICAGICAGGGG 781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC **AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC** 541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA TTCCAGCATATAATGGTGGGTCTCCATCCTGCCCGGCATCGTCATCCTCTGTTACTGC rrrcagcacarcargerrescerrarecresceres rarerea constructor de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construcción de la construc ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCCACAGGAGCGCAAGGCCCTCAAGACG ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC 1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGGTCTGGAGACTATGACTAG Gaps 41; 5161; thymine FEATURE:

NAME/KEY: allele
LOCATION: (4030)..(4030)

OTHER INFORMATION: PS4: polymorphic base cytosine or thymine
FEATURE:
NAME/KEY: allele
LOCATION: (4262)..(4262)

OTHER INFORMATION: PS5: polymorphic base adenine or thymine
US-10-160-401-1 Length Query Match 55.1%; Score 933.8; DB 16; Length Best Local Similarity 81.6%; Pred. No. 3.7e-236; Matches 1152; Conservative 3; Mismatches 215; Indels 601 3770 721 3950 301 421 481 661 61 181 241 g g 셤 셤 à 유 ò g ò g ઠે à d à ₽ ે g à 요 ठ g 8 8 ò 셤 ઠે g ò

4301 1200 4411 4471 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 4190 rccacreagrereagrerrcagrirreacrecagera-----cacacareraa 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 4412 rgandrondrichadecadeaccherdeccaachrennachrechdrarerereseada 1081 AATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 4302 ActeAccanatriciacacitititaticcitcitcacattrici-----cricicitric 4356 irriadiriridigaadiriraaridacrirarirara----raaaririririridiricarar GACTGTAGAACTGTAGAAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGAATAAA BLOOD g DETECTION Sequence 1213, Application US/10641643

Publication No. US20040077003A1

GENERAL INFORMATION:

Suban G. Stuart

Jeffrey J. Sellhamer

TITLE OF INVENTION: COMPOSITION FOR THE DETECTION

NUMBER OF SEQUENCES: 1508

CORRESPONDENCE ADDRESSE

ADDRESSEE: INCYTE PHARMACEUTICALS, INC.

STREET: 3174 PORTER DRIVE 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411 COMPUTER READBLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: IEM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: Word Perfect 6.1 for Windc
CURRENT APPLICATION DATA:
FILING DATE: 14-ANG-2003
FILING DATE: 14-ANG-2003
FRIOR APPLICATION DATA: FILLOR DAIA:
APPLICATION NUMBER: «Unknown»
FILING DAIE: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAKE: Zeller, Karen J.
RECISTRATION NUMBER: 37,071
REPERENCE/DOCKET NUMBER: PA-0001 US
TELECOMMUNICATION INFORMATION: 4524 GCTAGAAATGATCCCCAGCTGTTTATGCATA CITY: PALO ALTO STATE: CALIFORNIA COUNTRY: USA SULT 2 -10-641-643-1213 1321 196 901

TELEPHONE: (650) 855-0555

TELEPAX: (650) 845-4166

INFORMATION FOR SEQ ID NO: 1213:
SEQUENCE CHARACTERISTICS:
LENGTH: 1664 base pairs
TYPE: nucleic acid
TYPE: nucleic acid
STRANDEDNESS: single
TYPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GENBANK
LIBRARY: GENBANK
LIBRARY: GENBANK
SEQUENCE DESCRIPTION: SEQ ID NO: 1213:
US-10-641-643-1213

Query Match
Best Local Similarity 81.8%; Pred. No. 2.1e-236;
Matches 1154; Conservative 0; Mismatches 216; Indels 41;

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ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG

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1149 GACTTTTTTTTAATAACTTTTTTTAAGTTACACTTTTTCAGATAAAAG 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 

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TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1097 recaergágrerreagrerreagrirricacrecageraa-----caeágargraaaa

977 961 1037 1021

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CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG AGCAGAGGCTCCAGCCTCAAGATCCTTTCCAAAGGAAAGCGGGGTGGACACTCTTCCGTC

CACAAGIGGAICICCAICACAGAGGCCCICGCCIICIICCACIGIIGGCIGAACCCCAIC

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GENERAL INFORMATION:

GENERAL INFORMATION:

Publication No. US20040033495A1

GENERAL INFORMATION:

APPLICANT: Murray, Richard

APPLICANT: Matson, Susan R.

APPLICANT: Watson, Susan R.

APPLICANT: Matson, Susan R.

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APPLICANT: Matson, Susan R.

TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators

TITLE OF INVENTION: MUMBER: US/10/211,462

CURRENT APPLICATION NUMBER: US 09/784,356

PRIOR FILING DATE: 2001-02-13

PRIOR PLILING DATE: 2001-02-14

PRIOR PLILING DATE: 2001-02-24

PRIOR FILING DATE: 2001-03-03

PRIOR FILING DATE: 2001-11-29

NUMBER OF SEQ ID NOS: 230

SOSTWARE PATENTING VA. 2.1

SEQ ID NO 80 LENGTH: 1679

TYPE: DNA , ORGANISM: Homo sapiens US-10-211-462-80

THE WAY IS ISSUE: 40 200

8 8 a 8 B 8 음 성 음  $\dot{\delta}$ g ઇ 780 840 180 240 360 480 583 540 628 900 688 9 748 808 898 163 GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 120 223 283 284 CAGAAGAAACTGAGAAGCATGACGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 343 300 403 463 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAAACAGTCAA 420 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720 AAATTTTTGTGTAAGGCTGTCCATATCTACACTGTCAACCTCTACAGCAGCGTTCTC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAG GAACCTGTTTCCGTGAAGAAAAGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 224 rechrenchrennahendedarrendedeahndahndeneheerenderehederrae CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 524 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGTGGCGTCTGGATCCCTGCCCTC -----TCAGTGAGGCA GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTCAA gardacadarararcrerdaddecerreraddecenareacrereregeregererereda TTCCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCCTGTTACTGC 689 rircascacarcarssirascrirarcerscersararistericarcersicerscristratic 721 ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCTGCCATATTATGTGGGGATCAGC 1 ATATACACTICIGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 41; 1679; Score 933.4; DB 13; Length Pred. No. 2.1e-236; 0; Mismatches 216; Indels Query Match
Best Local Similarity 81.8%;
Matches 1154; Conservative 361 584 541 629 199 749 808 781 121 344 301 481 61 181 241 421 601 164 8 8 g 8 8 음 장 g ò 음 셤 8 8 6 6 6 δ g ઠે 셤  $\dot{\delta}$ d 8 ઠ g  $\delta$ 

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GACTGTAGAACTGTAGAGGAAGAAACTGAACATTCCAGAATGTGTGGTAAATTGGAATAAA

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1331 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG

1109 TCCACTGAGTCTGAGTCTTCAGTCTCAGCTAA-----CACAGATGTAAAA 1160

GACTITITITIAIACGATAAATAACTITITITIAAGTTACACATTITICAGATATAAAAG

1161 1141 1221 1201 1275

1081 AATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG

1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG

ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC

COMPOSITIONS FOR CONTROL OF BONE FORMATION VIA OF NEUROPEPTIDE Y ACTIVITY ω •• 120 223 180 283 240 343 300 9 104 ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 184 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACTGTCAGTGGCCGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC 181 CAGAAGAAGCIAAAGAAGCAIGACGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC 1 ATATACACTICTGATAACTACTCTGAAGAGTGGGGTCTGGAGACTATGACTCCAACAAG Gaps 41; Length 1679; Indels Query Match 55.1%; Score 933.4; DB 13; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; I Sequence 9, Application US/10181906
| Publication No. US20040053864A1
| GENERAL INFORMATION:
| APPLICANT: Karsenty, Gerard
| APPLICANT: Karsenty, Gerard
| APPLICANT: Amling, Michael
| APPLICANT: Amling, Michael
| APPLICANT: Amling, Michael
| TITLE OF INVENTION: METHODS AND COMPOSITIONS;
| TITLE OF INVENTION: MODILATION OF NEUROPEPT:
| TITLE OF INVENTION: MODILATION OF NEUROPEPT:
| TITLE OF INVENTION: MODILATION OF NEUROPEPT:
| TITLE OF INVENTION NUMBER: PCT/US01/02040
| PRIOR PILING DATE: 2001-01-22
| WUMBER OF SEQ ID NOS: 16
| SEQ ID NO 9;
| SEQ ID NO 9;
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| SEQ ID NO 9;
| SEQ ID NO 9; ) LENGTH: 1679 ; TYPE: DNA ; ORGANISM: Homo sapiens US-10-181-906-9 121 61 d ઠે ઠ g ઠે g ö g ò

AGCAGAGGGTCCAGGCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTT

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TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080

1048 1020 1080 1160 1140 1220 1200 1274 1260 1320 1442 1330 540 960 360 463 420 523 480 583 628 600 688 9 748 808 780 868 840 928 900 988 ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG 720 ATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACCACCAACAGTCAG TITCAGCACATCAIGGTTGGCCTTAICCTGCCTGGTAITGTCATCTGCTGCTATTGC ACAGTCATCCTCATCCTCGGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGC ATCGACTCCTTCATCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAAACACTGTG CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC 1049 AGCAGAGGGTCCAGCCTCAAGATCCTCCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1275 TITAGITITIGIGAAGITIAATIGACITATITATA----TAAAITITITIGITICAIAI 1261 GAATGAGCGTCTAGGCAGGACCTGTGGCCCAAGTTCTTAGTAGTAGTGTTTATCTGTGTAG CTCTTTGTCATCACGCTTCCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG ATTATCATCTCCAAGCTGTCACACTCCAAGGCCACCAGAAGCGCAAGGCCCTCAAGACC ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGGATCAGC CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 1081 AATATATATATATATATATAAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATTCC 1221 Acridacciariaridiaciariririrariscrireriscarirmisi-----crisisiriri AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 344 361 464 524 629 661 749 721 809 781 698 841 929 989 1109 1201 421 481 541 601 689 901 196

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APPLICANT: Dai, Hongvue
APPLICANT: Dai, Hongvue
APPLICANT: He, Yudong
APPLICANT: Linsley, Peter S.
APPLICANT: Linsley, Mac
APPLICANT: Moberts, Christopher J.
APPLICANT: Roberts, Christopher J.
APPLICANT: Van 't Veer, Laura Johanna
APPLICANT: Van 't Veer, Laura Johanna
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Van de Vijver, Marc J.
APPLICANT: Bernards, Rene
TILLE REFERENCE: 9301-188-999
CURRENT PELLOR DATE: 2003-04-18
PRIOR PLING DATE: 2003-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
PRIOR FILING DATE: 2002-06-14
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PRIOR FILING DATE: 2002-06-14 121 TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC
224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTC 104 ATATACACTICAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG 164 GAACCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTAC 284 CAGAAGAAACTGAGAAGGATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCGGCGACCTC 344 cremmentareacernecenteresecarneanscensecaaacresaacmings 361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGGGTCTGGATCCCAGCCCTC 1 ATATACACTICIGATAACTACTCTGAAGAGTGGGGGTCTGGAGACTATGACTCCAACAAG GAACCCTGCTTCCGGGATGAAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CICITIGICATCACACICCCCTICIGGGCAGITGAIGCCAIGGCIGACIGGIACTIIGGG AAATTTTTGTGTAAGGCTGTCCATATCATCTACACTGTCAACCTCTACAGCGCGTTCTC 41; Gaps DB 13; Length 1679; Indels Query Match 55.1%; Score 933.4; DB 13; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; 1381 GCTAGCCGTGATCCTCAGCTGTTGCTGCATA
1443 GCTAGAAATGATCCCCAGCTGTTTATGCATA ; Sequence 912, Application US/10342887; Publication No. US20040058340A1; GENERAL INFORMATION: TYPE: DNA
CRGANISM: Homo sapiens
US-10-342-887-912 RESULT 5 US-10-342-887-912 61 181 241 301 404 464 421 524 181 ઠ 셤 셤 엄 ò ઠે ò ద ò ద ઠે 셤 à 엄 ठे ద ઠે 셤 ò

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118-02-30/-054-018D

; TITLE OF INVENTION: METHODS OF USING A FACILITATOR OF RETROVIRAL ENTRY
; TITLE OF INVENTION: LINO
; TITLE OF INVENTION: CELLS
; FILE REPERBNCE: 1049-1-017
; CURRENT APPLICATION NUMBER: US/10/151,274
; CURRENT PILING DATE: 2002-05-20
; FRIOR PPLICATION NUMBER: US/09/517,605
; RIOR FILING DATE: 2000-03-02
; NUMBER OF SEQ ID NOS: 17
; SEQ ID NO 14
; SEQ ID NO 14
; THE DAA
; ORGANISM: Homo sapiens
is ORGANISM: Homo sapiens

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	541 GATGACAGGTRCATCTGTGACCGCCTTTACCCCGATACCTGTGAALGGTGGTGATTCAA 800 
9 qa	601 TICCAGCATATAATGGTGGGTCTCATCCTGCCGGCATCGTCATCCTCTCTGTTACTGC 660
Oy . 6	661 ATCATCATCTCTAAGGTGTCACACTCCAAGGGCCACCAAAGGCGCAAGGCCCTCAAGACG 720 
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	81 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 84
8 8 54 8	869 ATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAAGAACACTGTG 928 841 ÇAÇAAGTGGATCTÇÇAATGACAGAGGGCCTCGCCTTTCTTCTTTGCTTGCTTGCCATC 900
Db dD	929 CACAAGTGGATTTCCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC 988
0. 0.0 0.00	901 CTCTATGCCTTCGGGGCCAAGTTCAAAGCTCTGCCCAGCATGCACTCATG 960 
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Db 10	049 AGCAGAGGGTCCAGCCTCAAGATCCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTT 1108
	21 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATATT 10
	TCCACTGAGTCTTCAGTTTTCACTCTAAACACAGATGTAAAA
9y 10	1081 AATATATATATATATATAGATAAGAACTTTTTTATGTTACACATTTTCCAGATATAAGAG 1140 
Qy 11	1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC 1200
Db 12	1221 ACTGACCAATATTGTACAGTTTTTATTGCTTGTTGGATTTTTGTCTTGTGTTTTC 1274
0y 13	1201 TCTAGTTTTTGTGAGGTTTGACTTAATTTAATATAATTTGTTTTTTGTTTG
Db 12	275 TITAGITITITIGIGAAGITIAAATIGACTIAITIATATAAATITITITITITIGITICATAT 1330
Qy 12	C)
Db 13	1331 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAG 1390
Qy 15	1321 GACTGTAGAACTGTAGAGGAAGAACTGAACATTCCAGAATGTGTGGTGATAAATTGAATAAA 1380
Db 13	391
ογ 1.	381 GCTAGCCGTGATCCTCAGCTGCTGCATA 1411
Db 14	1443 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473

RESULT 6
US-10-151-274-14
; Sequence 14, Application US/10151274
; Publication No. US20030064071A1
; GENERAL INFORMATION:
; APPLICANT: Littman, Dan R.
; APPLICANT: Wan, Douglas S.
; APPLICANT: van Kooyk, Yvette
; APPLICANT: Qeijtenbeck, Tneo

403 360 720 120 223 180 283 240 343 300 463 480 583 099 748 808 780 868 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840 61 GAACCCTGCTTCCGGGATGAAAAGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC 121 TICATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC

24 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC Trecagearanaaragagererearecreecegecarearearecreergraaracree 1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG Indels 41; Gaps Query Match 55.1%; Score 933.4; DB 13; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; Indels 41; 601 781 6 6 6 6 6 6 임 d ઠે q ò q ò g 6 g 6 g S g à ò g δ 8 %

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                                                                                                                                           164 GAACCCTGTTTCCGTGAAGAAATGCTAATTCAATAAAATCTTCCTGCCCACCATCTAC
                                                                                                                                                                                                                                                                                                                     CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG
                                                                                                                                                                                                                                                                                                                                                                             404 AACTICCIAIGCAAGGGAGCCAIGICATCIACACAGGCAACCICIACAGCAGGAGTGICCTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATCGACTCCTTCATCTCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CACAAGIGGAICICCAICACAGAGGCCCICGCCIICTICCACIGIIGGCCIGAACCCCAIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          929 CACAAGIGGATITCCAICACCAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATC
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                                                                                                                                                                                             224 TCCATCATCTTCTTAACTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTAC
                                                                                                                                                                                                                                         CAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC
                                                                                                                                                                                                                                                         CICITITGICATCACACTCCCCTTCTGGGCAGTTGCCATGGCTGACTGTGTACTTTGGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGCCATATTATGTGGGGATCAGC
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                                                         1 ATATACACTICTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
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 Length 1679
                            Indels
 DB 13;
Score 933.4; DB 13;
Pred. No. 2.1e-236;
0; Mismatches 216;
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Query Match
Best Local Similarity 81.8%;
Matches 1154; Conservative
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APPLICANT: Dai, Hongyue
APPLICANT: Dai, Hongyue
APPLICANT: He, Yudong
APPLICANT: Linaley, Peter
APPLICANT: Linaley, Peter
APPLICANT: Wao, Mao
APPLICANT: Roberts, Chris
APPLICANT: Van de Vijver, Marc
APPLICANT: Van de Vijver, Marc
APPLICANT: Bernards, Rene
TILE OF INVENTION: Diagnosis and Prognosis of
FILE REFERRICE: 9301-175-999
CURRENT APPLICATION NUMBER: US/10/172,118
CURRENT APPLICATION NUMBER: 60/380,770
PRIOR FILING DATE: 2002-06-14
NUMBER OF SEQ ID NOS: 2699
SEQ ID NO 912
LENGTH: 1679
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PUBLICATION INFORMATION:
DATABASE ACCESSION NUMBER: NM_003467
DATABASE ENTRY DATE: 2001-06-18
US-10-172-118-912
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; Sequence 912, Application US/10172118; Publication No. US20030224374A1; GENERAL INFORMATION:
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US-10-172-118-912
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ACAGTCATCCTCATCCTAGCTTTCTTTGCCTGCTGGCTGCCATATTATGTGGGGATCAGC
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US-10-021-660-58
US-10-021-660-58
Sequence 58, Application US/10021660
GENERAL INFORMATION:
APPLICANT: MUTRAY, Richard
APPLICANT: Matray, Richard
APPLICANT: Watson, Susan R.
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                                                                                                                                                                                                                                   Sequence 75. Application US/1025567A

Publication No. US20030113798A1

GENERAL INFORMATION:

APPLICANT: LifeSpan Biosciences

APPLICANT: Burmer, Glenna C.

APPLICANT: Burmer, Glenna C.

APPLICANT: Burmer, Glenna C.

APPLICANT: Burmer, Glenna C.

APPLICANT: Burmer, Glenna C.

APPLICANT: Worsh, Christine L.

TILE REFERENCE: 1920-4-4

CURRENT APPLICATION NUMBER: US/10/225,567A

CURRENT APPLICATION NUMBER: 6001-12-19

PRIOR APPLICATION NUMBER: 6005-12-19

PRIOR APPLICATION NUMBER: 6005-12-19

PRIOR APPLICATION NUMBER: 6005-12-19
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                                                                                                                                                        1443 GCTAGAAATGATCCCCAGCTGTTTATGCATA 1473
                                                                                                                                      GCTAGCCGTGATCCTCAGCTGTTGCTGCATA 1411
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SOFWHARE: Patentin version 3.1
SEQ ID NO 75
LENGTH: 1679
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; ORGANISM: Homo sapiens
US-10-225-567A-75
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809 ACAGICAICCICAICCIGGCIIICIICGCCIGIIGGCIGCCIIACIACAIIGGGAICAGC 868

CACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCATC

841

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## APPLICANT: BCS Biotechnology, Inc.

TITLE OF INVENTION: No. US20330152926Alel Methods of Diagnosis of Angiogenesis,

TITLE OF INVENTION: Compositions and Methods of Screening for Angiogenesis

TITLE OF INVENTION: Modulators

FILE REFERENCE: 018501-000710US

CURRENT APPLICATION UNDER: US/10/21,660

PRIOR PILING DATE: 2001-02-14

PRIOR FILING DATE: 2001-02-14

PRIOR FILING DATE: 2000-08-11

NUMBER: OF SEQ ID NOS: 135

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 58

LENGTH: 1679

TYPE: DNA

ORGANISM: Homo gapiens

US-10-021-660-58

ŝ, Gaps Score 933.4; DB 15; Length 1679; Pred. No. 2.1e-236; 0; Mismatches 216; Indels 41; Query Match Best Local Similarity 81.8%; Matches 1154; Conservative C

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TTCATCATCTTCTTGACTGGCATAGTCGGCAATGGATTGGTGATCCTGGTCATGGGTTAC 180 121

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284 CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC 343 CAGAAGAAGCTAAAGGAGCATGACGGACAAGTACCGGCTGCACCTGTCAGTGGCTGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG 241

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524 AGGCCAAGGAAGCIGTIGGCIGAAAAGGIGGICIATGIIGGCGICIGGAICCCTGCCGC 481

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RESULT 11 US-10-341-434-177

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TYPE: DNA ORGANISM: Homo sapiens FEATURE:

; NAME/KEY: CDS ; LOCATION: (89)..(1144) ; OTHER INFORMATION: US-10-341-434-177

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-----CACAGATGTAAAA 1160
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Publication No. US20030134283A1

Fublication No. US20030134283A1

GENERAL INFORMATION:

APPLICANT: Peterson, David P.

APPLICANT: Peterson, Cecelia I.

APPLICANT: Cocks, Benjamin G.

TITLE OF INVENTION: GENES REGULATED IN DENDRITIC CELL DIFFERENTIATION
FILE REFERENCE: PA-0029 US

CURRENT FILING DATE: 2001-10-03

FRIOR APPLICATION NUMBER: 60/237,652

PRIOR PLICATION NUMBER: 60/237,652

PRIOR FILING DATE: 2000-10-03

NUMBER OF SEQ ID NOS: 260

SOFTWARE: PERL Program

SEQ ID NO 20

LENGTH: 1711
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                                            AATATATATATATATATGATAAAGAACTTTTTTATACACATTTTCCAGATATAAGAG
                                                                 GACTTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTTCAGATAAAAG
                                                                                                    ACTGACCAGICTTGTACAGTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTCC
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55.1%; Score 933.4; DB 10;
Best Local Similarity 81.8%; Pred. No. 2.2e-236;
Matches 1154; Conservative 0; Mismatches 216;
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NAME/KEY: misc_feature
OTHER INFORMATION: Template ID: 284616.
NAME/KEY: unsure
LOCATION: 1706
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ORGANISM: Homo sapiens
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US-09-971-392-20
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      Query Match 55.1%; Score 933.4; DB 16; Length 1679; Best Local Similarity 81.8%; Pred. No. 2.1e-236; Matches 1154; Conservative 0; Mismatches 216; Indels 41;
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Db 1366 TGATGTGTGTCTAGGCAGGACCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCTGATAGT  Qy 1321 GACTGTAGAACTGTAGAAGAAAACTGAACATTCCAGAATGTGGGTAAATTGAATAAA 1	1478	RESULT 13 US.10-101-510-459 i, Sequence 459, Application US/10101510 i: Duhlization No. 11220031483651	6		; PRIOR PELLIATION NUMBER: B0/2/8,94/ ; PRIOR FILING DATE: 2001-03-20 ; NUMBER OF SEQ ID NOS: 805 ; SOFTWARE: PatentIn Ver. 2.1	; SENGTH: 1711 TYPE: DNA CORGANISM: Homo sapiens	; FEATURE: ; NAME/KEY: modified_base ; LOCATION: (1706) ; OTHER INFORMATION: a, t, c, g, other or unknown	core 933.4; DB 15; Length 1711;	Marcnes	139	199 Q	259	319		361 361	4 4 21	Db 559 AGGCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTTGGATCCCTGCCTC 6  Qy 481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGGGGACATCAGTCAG
CAGAAGAAACTGAGAAGCATGACGGACAAGTACAGGCTGCACCTGTCAGTGGCCGACCTC CTCTTTGTCATCACACTCCCCTTCTGGGCAGTTGATGCCATGGCTGACTGGTACTTTGGG CTCTTTGTCATCACACTCCCTTCTGGGCAGTTGATGCCATGGCTGACTTTGGG CTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGTGGCAAACTGGTACTTTGGG	AAAITTTTGTGTAGGGGGGCGTCTCACACTGTCACCTCTACACGGGGTTCTC	361 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATGTCCACGCCACCAACAGTCAA 420	421 AGGCCAAGGAAACTGCTGGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCCTC 480	481 CTCCTGACTATACCTGACTTCATCTTTGCCGACGTCAGCGGGGGGGACATCAGTCAG	541 GATGACAGGTACATCTGTGACCGCTTTACCCCGATAGCCTGTGGATGGTGGTTTTCAA 600 	601 TICCAGCATATAATGGTGGGTCTCATCCTGCCCGGCATCGTCATCCTCTCTGTTACTGC 660	661 ATCATCACTCTAAGCTGTCACACTCCAAGGGCCACCAAGAGGCCAAGGCCCTCAAGAGG 720 	721 ACAGTCATCCTARTTTTTTTGCTGCTGCTGCCCATATTATGTGGGGATCAGC 780	781 ATCGACTCCTTCATCCTTTTGGGAGTCATCAAGCAAGGATGTGACTTCGAGAGCATTGTG 840 	841 CACAAGIGGAICTCCAICACAGAGGCCCTGGCCTICTTCCACTGTIGCCTGAACCCCAIC 900	901 CTCTATGCCTTCCTCGGGGCCAAGTTCAAAAGCTCTGCCCAGCATGCACTCAACTCCATG 960 	961 AGCAGAGGCTCCAGGCCTCAAGATCCTTTCCAAAGGAAAGGGGGGGG	1021 TCCACGGAGTCAGAATCCTCCAGTTTTCACTCCAGCTAACCCTTATGCAAAGACTTATAT 1080 	1081 AATATATATATATATATAAGAACTTTTTATGTTACACATTTTCCAGATATAAGAG 1140 	1141 ACTGACCAGTCTTGTACAGTTTTTTTTTTTTTAATTGACTGTTGGGAGTTTATGTTC 1200	1201 TCTAGTTITGTGAGGTTGACTTAATTAAATAAAATTGTTTTTTGTTTG	1261 GAATGAGCGTCTAGGCAGCTCTGGCCAAGTTCTTAGTAGCTGTTTATCTGTGTAG 1320
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CORRESPONDENCE ADDRESS:
ADDRESSE: Genentech, Inc.
STREET: DNA Way
CITY: South San Francisco
CINTY: South San Francisco
COUNTRY: California
CONFUTRY: California
CONFUTRY: California
COMPUTRY: California
COMPUTRY: BADABLE FORM:
MEDULUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: IBM PC compatible
COMPUTER: 22-AUG-1998
FILING DATE: 22-AUG-1998
FILING DATE: 22-AUG-1996
PRIOR APPLICATION NUMBER: 08/76093
FILING DATE: 06-JUN-1996
PRIOR APPLICATION NUMBER: 08/76093
FILING DATE: 11-JUN-1993
PRIOR APPLICATION NUMBER: 07/810762
FILING DATE: 19-DEC-1991
ATTORNEY/AGBNT THORDMATION:
NAME: LOVE, RICHARCH BANGER: A4,659
REGISTRATION NUMBER: 34,659
REFERENCE/DOCKET NUMBER: 34,659
TELEPHONE: 415/225-5530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 415/952-9881
TELEX: 910/371-7168
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 1737 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: Nucleic Acid
STRANDEDNESS: Single
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      US-09-104-063-3
; Sequence 3, Application US/09104063
; Patent No. US20020168356A1
; GENERAL INFORMATION:
APPLICANT: Lee, James
; APPLICANT: Lee, James
; TITLE OF INVENTION: FF4A Receptors
; NUMBER OF SEQUENCES: 6
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                                                                                                     1 ATATACACTTCTGATAACTACTCTGAAGAAGTGGGGTCTGGAGACTATGACTCCAACAAG
                                                  41;
Length 1737;
                                                  Indels
Query Match 55.1%; Score 933.4; DB 9; Best Local Similarity 81.8%; Pred. No. 2.2e-236; Matches 1154; Conservative 0; Mismatches 216;
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Sequence 3, Application US/1066689
| Publication No. US20040037830A1
| GENERAL INFORMATION:
| APPLICANT: Wood, William I.
| APPLICANT: Wood, William I.
| TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: Human PF4A Receptors, Nucleic Acid Encoding and TITLE OF INVENTION: HUMBER: US 09/104,063
| PRIOR APPLICATION NUMBER: US 09/104,063
| PRIOR FILING DATE: 1996-06-22
| PRIOR PELING DATE: 1996-06-22
| PRIOR PELING DATE: 1996-06-01
| PRIOR PELING DATE: 1991-03-19
| PRIOR FILING DATE: 1991-03-29
| NUMBER OF SEQ ID NOS: 6
                                                                                                                                                                                                                                                                                                                                                                                                                      DB 13;
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Pred. No. 2.2e-236;
0; Mismatches 216;
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81.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity 81.8
Matches 1154; Conservative
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CORGANISM: Homo sapien
US-10-666-689-3
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              ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG 720
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Homo sapiens

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

Liver, Butheria; Primates; Catarrhini; Hominidae; Homo.

Liver, Butheria; Primates; Catarrhini; Hominidae; Homo.

Liver, Carber, C., Jessee, J. and Polayes, D.

Full-length CDNA libraries and normalization

Unpublished (2001)

Contact: Genoscope

Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Emal: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr

Library was constructed by Life Technologies, a division of

Invitrogen. This sequence belongs to sequence cluster 1272.r For

more information about this cluster, see

http://www.genoscope.cns.fr/

cgi-bin/cluster.cgi?seq=CSDD144AH070Pl&cluster=1272.r. Contact :
Feng Liang Emal! : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
     BX358246 BX358346
BX55253 BX45253
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BX397685.1 GI:30621359
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Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq-CSDD1015DF10QP1&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
http://tullength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODIOI5DF10QP1.
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BX396365
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  902 GCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTTGAGAACACTG 961
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/clone_lib="Homo sapiens PLACENTA COT 25-NORMALIZED"
/note="lst strand cDNA was primed with a NotI-oligo(dT)
primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR V
sites of the pCMVSPORT 6 vector, Library was normalized."
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                                                                              962 IGCACAAQIGGAITTCCATCACCAAGGCCCTAGCTTTYTTCCACTGTTGTTTGAACCCCA
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Best Local Similarity 85.4%; Pred. No. 2.4e-106;
Matches 828; Conservative 2; Mismatches 124; Indels 16;
     : CS0DI041AH07QP1.
venue Genoscope sequence ID
Location/Qualifiers
                                                                            organism="Homo sapiens"
  Faraday
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/clone=lib="Homo CELL LINE"
/clone=lib="Homo CELL LINE"
/note="Vector: pcMYSPORT_6; lst strand cDNA was primed
/note="Vector: pcMYSPORT_6; lst strand cDNA was primed
with a NotI-oligo(dT) primer. Five prime end enriched,
double-strand cDNA was digested with Not I and cloned into
the Not I and Ecory sites of the pcMYSPORT 6 vector.
Library was not normalized."
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      Genoscope - Centre National de Sequencage
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BP 191 91006 EVRY cedex - France
BP 191 91006 EVRY cedex - France
BRail: sequefogenoscope.cns.fr, web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/cluster.cgi?seq=CSODG004AD05QPl&cluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InVitroGen Corporation 1600
Faradday Avenue Genoscope sequence ID : CSODG004AD05QPl.
                                                                                            For
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Matches 847;
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1201 bp mRNA linear EST 15-MAY-2003
BX421287 Homo sapiens B CELLS (RAMOS CELL LINE) Homo sapiens cDNA
clone CSODG004YG09 5-PRIME, mRNA sequence.
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Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDBA libraries and normalization
Unpublished (2001)
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 /note="Vector: pGMVSPORT_6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-strand cDNA was digested with Not I and cloned the Not I and BcoRV sites of the pGMVSPORT 6 vector. Library was not normalized."
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Pred. No. 6.1e-103;
6; Mismatches 121; Indels 15;
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BP 191 9106 EVRY cedex - France
BP 191 9106 EVRY cedex - France
BP 101 101 8 equence by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=cS0DG007BG06QPl&cluster=1272.r. Contact:
Feng Liang Email: fliangealifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CS0DG007BG06QPl.
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BX421511
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1. (bases 1 to 1201)
11. W.B., Gruber, C., Jessee, J. and Polayes, D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                  ATCATCATCTCTAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCCAAGGCCCTCAAGACG
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/mol_type="mcMan"
/db_xref="caxon:9606"
/clone="CSODG007YM12"
/clone="CSODG007YM12"
/clone="Line="RAMOS CELL LINE"
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/clone_lib="Homo sapiens B CELLS (RAMOS CELL LINE)"
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

18 1 (base 1 to 1201)

19 1 (base 1 to 1201)

10 Inwar, C., Jessee, J. and Polayes, D.

10 Full-length cDNA libraries and normalization

11 Inpublished (2001)

12 Contact: Genoscope Genoscope Genoscope - Centre National de Sequencage

18 191 91006 ENRY cedex - France

18 191 91006 ENRY cedex - France

19 191 91006 ENRY cedex - France

10 Email: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr

10 Library was constructed by Life Technologies, a division of

10 Library was Contact: Reng Liang Email: fliang@lifetech.com URL: http://fulllength.invitrogen.com/ InvitroGen Corporation 1600

10 Faraday Avenue Genoscope sequence ID: CS0DI036CE09QPP1.
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1201 bp mRNA linear EST 05-MAY-2003
BX358346 Homo sapiens PLACENTA COT 25-NORMALIZED Homo sapiens cDNA
clone CSODI036Y17 5-PRIME, mRNA sequence.
BX358346.1 GI:30370215
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/clone lib="Homo sapiens Placenta COT 25-NORMALIZED"
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primer. Five prime end enriched, double-strand cDNA was
digested with Not I and cloned into the Not I and EcoR v
sites of the pCMVSPORT 6 vector. Library was normalized.
                                                                                                                                                                                                                                                                                                    541 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGTTTTCAA
                                                                                                                                                                                                                                                 624 GATGACAGGTACATCTGTGACCGCCTTTACCCCGATAGCCTGTGGATGGTGGTGTTTCAA
                      444 ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCACGCCACCAACAGTCAA
                                                                                                                504 AGCCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGCGTCTGGATCCCAGCCTC
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      ATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCATTGTCCCACGCCACCAACAGTCAA
                                                                            421 AGGCCAAGGAAACTGCTGGCTGAAAAGGCAGTCTATGTGGGGCGTCTGGATCCCAGCCCTC
                                                                                                                                                     ch 40.2%; Score 681.4; DB 13; Length 1201; I Similarity 85.3%; Pred. No. 9.1e-102; 783; Conservative 4; Mismatches 116; Indels 15;
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/strain="FVBN"
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/db_xref="taxon:10090"
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/ste_2: Sal1; Cloned unidirectionally. Primer: Oligo dT.
/sterage insert size 1.6 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                    BUS23025

AGENCOURT 10154335 NCI_CGAP_CO24 Mus musculus cDNA clone
IMAGE:6229663 5', mRNA sequence.
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40.4%; Score 684; DB 13; Length 906;
Best Local Similarity 98.1%; Pred. No. 3.6e-102;
Matches 714; Conservative 0; Mismatches 10; Indels
1027 CTCTATGCTTTCYTTGGAGCAAATTTAAAACTCT 1060
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi; Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1051)

NIH-MGC http://mgc.nci.nih.gov/.

Nutional Institutes of Health, Mammalian Gene Collection (MGC)

Nutional Institutes of Health, Mammalian Gene Collection (MGC)

L Umpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-remail.nih.gov

Tissue Procurement: Invitrogen

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

http://image.llnl.gov

Plate: Limmige.llnl.gov

Plate: Limmige.llnl.gov

High quality sequence start: 20

High quality sequence start: 20

Location/Qualifiers

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ATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTATGACTCCATGAAG
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/tissue\_type="hippocampus"
/lab host="DH108"
/clone\_lib="NIH MGC\_124"
/note="Organ: Drain; Vector: pCMV-SPORT6; Site\_1: ECORV
(destroyed); Site\_2: Not1; RNA source male hippocampus,
age 27. Library is oligo-dr primed and directionally
cloned (ECORV site is destroyed upon cloning). Average
insert size 1.4 kb, insert size range 0.9-4 kb. Library is
normalized and enriched for full-length clones and was
constructed by C. Gruber (Invitrogen). Research Genetics
tracking code 012."

1. .1051 /organism="Homo sapiens" /mol\_type="mRNN" /db\_xref="taxon:9666" /clone="TMAGE:5726963"

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39.7%; Score 672.2; DB 12; Length 1051; llarity 83.9%; Pred. No. 3e-100; Conservative 0; Mismatches 138; Indels 20;
                  Similarity
                                   825;
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BM545259 1051 bp mRNA linear EST 20-FEB-2002 AGENCOURT 6497171 NIH\_MGC\_124 Homo saplens cDNA clone IMAGE:5726963 57, mRNA Sequence.
BM542259

BM545259.1 GI:18777197 EST. sapiens (human)

Homo sapiens Homo sapiens

VERSION KEYWORDS SOURCE ORGANISM

ACCESSION

RESULT 7 BMS45259 LOCUS DEFINITION

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CTCTATG-CTTTCTTGGAGGAAATTWAAACTCTGCCAGCACGCACTCACTCTGTTAGAGA 1092
note="lst strand cDNA was primed with a NotI-oligo(dT) srimer. Five prime end enriched, double-strand cDNA was ligested with Not I and cloned into the Not I and ECOR V sites of the pCMVSPORT 6 vector, Library was normalized."
                                                                                                                                                                                               GAACCCTGCTTCCGGGATGAAACGTCCATTTCAATAGGATCTTCCTGCCCACCATCTAC
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Contact: Genoscope. Centre National de Sequencage
Genoscope. - Centre National de Sequencage
Genoscope. - Centre National Genoscope. Cens.fr.
Email: seqrefégenoscope.cns.fr. Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r. For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi/seq-CSODC0003AD02QPl&cluster=1272.r. Contact :
Feng Liang Email: fliang@lifetech.com URL:
Chtp://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODC003AD02QPl.
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/db_xrefa"taxon:9603"
/clone=rCSODCORNA.
/tissue type="NEUROBLASTCMA COT 25-NORNALIZED"
/clone_lib="Homo sapiens NEUROBLASTOMA COT 25-NORMALIZED"
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   ATCATCATCTCTAAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACG
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BX418530 1201 bp mRNA linear EST 13-MAY-2003 BX418530 Homo sapiens FETAL BRAIN Homo sapiens cDNA clone CSODF006XJ16 5-PRIME, mRNA sequence.
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                                          448 AACTICCTAIGCAAGGCAGICCAIGICATCTACACAGCAACCICTACAGCAGIGICIC
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Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Butele

Bummalia, Butheria, Primates, Catarrhini, Hominidae, Homo.

(bases 1 to 1201)

Li,W.B., Gruber, C., Jessee, J. and Polayes, D.

Full.length cDNA libraries and normalization

Unpublished (2001)
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/mol type="mRNA"
/mb Zref="texxon:9606"
/db Zref="texxon:9606"
/clone="CSCDH0062Y10"
/tissue type="T CELLS (JURKAT CELL LINE)"
/clone="JURKAT CELL LINE"
/clone lib="Homo sapiens T CELLS (JURKAT CELL LINE)"
/note="Vector: PCMVSPORT 6; lst strand cDNA was primed
with a Not1-oligo(dT) primer. Five prime end enriched,
double-strand cDNA was digested with Not I and cloned into
the Not I and EcoRV sites of the pCMVSPORT 6 vector.
Library was not normalized."
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LINE) Homo sapiens CDNA
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BP 191 91006 EVRY cedex - France
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Invitrogen. This sequence belongs to sequence cluster 1272.r For Invitrogen. This cluster, see
http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODH005BF05QP1&cluster=1272.r. Contact :
Frog Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODH005BF05QP1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 (bases 1 to 1201)
Li,W.B., Gruber,C., Jessee,J. and Polayes,D.
Full-length cDNA libraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                        BX462627
1201 bp mRNA
BX465827 Homo sapiens T CELLS (JURKAT CELL
C210ne CSODH005YK10 5-PRIME, mRNA sequence.
BX462627
                                   GGGTCMRSCTCAGATCTC 1110
                                                                                                                                                                                                                                                                                                                                                       BX462627.1 GI:31029445
961 AGCAGAGGCTCCAGCCTC
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State in (bases 1 to 793)

Rara,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le.M., Martin,J., Morris,M., Theising,B., Wylie,T., Lacy,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylie,T., Lennon,G., Soares,B., Wilson,R. and Waterston,R.

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WashU-HHMI Mouse EST Project

WashU-HHMI Mouse EST Project

Washington University School of MedicineP

4444 Forest Parkway, Box 8501, St. Louis, MO 63108

Tel: 314 286 1800

Fax: 314 286 1800
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /clone_lib="Soares mouse lymph node NbMLN"
/note="Nogan: lymph node; Vector: pT773D-Pac (Pharmacia)
with a modified polylinker; Site_l: Not I; Site_2: Eoc RI;
lst strand cDNA was primed with a Not I - oligo(dT) primer
                                                                                                                          Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL ; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
MGI:388497
Seq primer: -28M13 rev2 from Amersham
High quality sequence stop: 497.
Location/Qualifiers
                           923 CATGGACTCCTTCATCCT-GGAAAYATCAAGCAAGGGTGTGAGTTTGAGAACACTGT
                                                                                              GCACAAGTGGATCTCCATCACAGAGGCCCTCGCCTTCTTCCACTGTTGCCTGAACCCCAT
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Pred. No. 6.1e-92;
0; Mismatches 46;
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/dev_stage="4 weeks"
/lab_host="DH10B"
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/mol type="mRNA"
/strain="C57BL/6J"
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/clone="IMAGE:636505"
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Mus musculus (house mouse)
Mus musculus
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Best Local Similarity 92.4%;
Matches 715; Conservative (
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MGI:609995
Seq primer: -28ml3 rev2 ET from Amersham
High quality sequence stop: 510.
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The WashU-HHMI Mouse BST Project
Unpublished (1996)
Contact: Marra MYMOUSE EST Project
WashU-HHMI Wouse EST Project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. Louis, MO 63108
Fax: 314 286 1800
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Bukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus.
I (bases 1 to 639)
Marra, M., Hillier, L., Allen, M., Bowles, M., Dietrich, N., Dubuque, T., Geisel, S., Kucabar, T., Lacy, M., Le, M., Martin, J., Morris, M.,
Schellenberg, K., Steptce, M., Tan, F., Underwood, K., Moorre, B.,
Theising, B., Wylie, T., Lennon, G., Soares, B., Wilson, R. and
Waterston, R.
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BX362477 Homo sapiens T CELLS (JURKAT CELL LINE) COT 10-NORMALIZED HOMO sapiens CDNA clone CS0DJ015YP09 5-PRIME, MRNA sequence.
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1 (Dases 1 to 952)

Li,W.B., Gruber, C., Jessee, J. and Polayes, D.

Li,W.B., Gruber, C., Jessee, J. and Polayes, D.

Unpublished (2001)

Contact: Genoscope

Genoscope - Centre National de Sequencage

BP 191 91006 EVRY cedex - France

Email: segref@genoscope.cns.fr, Web : www.genoscope.cns.fr
                                                                                                                                                                                                                                    361 AICCIGGCCITCALCAGCCIGGACCGGIACCICGCCAITGICCACGCCACCAACAGICAA
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/cloligo(dT) primer. Five prime end enriched,
double-strand cDNA was digested with Not I and cloned into
the Not I and Ecory sites of the pCMVSPORT 6 vector.
Library was not normalized."
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Contact: Genoscope,
Contact: Genoscope.
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Brail: seqref@genoscope.cns.fr, Web: www.genoscope.cns.fr
Library was constructed by Life Technologies, a division of
Invitrogen. This sequence belongs to sequence cluster 1272.r For
more information about this cluster, see
http://www.genoscope.cns.fr/
cgi.bin/cluster.cgi?seq-CSODG003AH10QP1&cluster=1272.r. Contact:
Feng Liang Email: fliang@lifetech.com URL:
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID: CSODG003AH10QP1.
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Mammalia; Butheria; Primates; Catarrhini; Hominidae; Homo.

(bases 1 to 1201)

(cluber, C., Jessee, J. and Polayes, D.

Full-length cDbr, Libraries and normalization

Unpublished (2001)
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es 730; Conserv
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Homo sapiens (human)

Homo sapiens

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

In Chases 1 to 872)

Solid Marional Institutes of Health, Mammalian Gene Collection (MGC)

Unpublished (1999)

Contact: Daniela S. Gerhard, Ph.D.

Office of Cancer Genomics

National Cancer Genomics

National Cancer Genomics

National Cancer Institute / NIH

Bldg. 31 Rm10A07 Bethesda, MD 20892

Email: cgapbs-rement: Dr. Michael Brownstein

CDNA Library Preparation: Invitrogen Corp

CDNA Library Preparation: Invitrogen Corp

CDNA Library Preparation: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

High quality sequence stop: 654.

Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                 CD251331 872 bp mRNA linear EST 22-MAY-2003
AGENCOURT 14211919 NIH MGC 179 Homo sapiens cDNA clone
IMAGE:30384274 5', mRNA sequence.
CD251331. GI:31011797
     159 GGTGATCCTGGTCATGGGTTACCAGAAGAAGCTAAGGAGCATGACGGACAAGTACCGGCT
                                                                                         1 GGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGACGAAGTACAGGCT
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Library was constructed by Life Technologies, a division of Invitrogen. This sequence belongs to sequence cluster 1272.r For more information about this cluster, see http://www.genoscope.cns.fr/
cgi-bin/cluster.cgi?seq=CSODJO15CHO5QP1&cluster=1272.r. Contact Feng Liang Email : fliang@lifetech.com URL :
Feng Liang Email : fliang@lifetech.com URL :
http://fulllength.invitrogen.com/ InvitroGen Corporation 1600
Faraday Avenue Genoscope sequence ID : CSODJO15CHO5QP1.
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35.6%; Score 603; DB 13; Length 952;
Best Local Similarity 85.2%; Pred. No. 6.4e-89;
Matches 685; Conservative 4; Mismatches 100; Indels 11
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                                                                                                                                                                  CCAGGGGGGACATCAGTCAGGGGGATGACAGTACATCTGTGACGCCTTTACCCCGATAG 578
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CGTGGCAAACTGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCATCTACACAGT 180
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                       CAACCTCTACAGCGTGCTCTCATCCTGGCCTTCATCAGCCTGGACCGGTACCTCGCCAT
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